EDWIN J. NIJSSEN

# ENTREPRENEURIAL MARKETING

## How to Develop Customer Demand

Third edition

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# Entrepreneurial Marketing

How do you sell an innovative product to a market that does not yet exist? Entrepreneurial businesses often create products and services based on radically new technology that have the power to change the marketplace. Existing market research data will be largely irrelevant in these cases, making sales and marketing of innovative new products especially challenging to entrepreneurs. *Entrepreneurial Marketing* focuses on this challenge.

Classic core marketing concepts, such as segmentation, positioning, and the marketing mix undergo an 'extreme makeover' in the context of innovative products hitting the market. Edwin J. Nijssen stresses principles of affordable loss, experimentation, and adjustment for emerging opportunities, as well as cooperation with first customers. Containing many marketing examples of successful and cutting-edge innovations (including links to websites and videos), useful lists of key issues, and instructions on how to make a one-page marketing plan, *Entrepreneurial Marketing* provides a vital guide to successfully developing customer demand and a market for innovative new products. This third edition has been thoroughly expanded, including:

- Expanded content on leveraging digital technologies and their new business models
- More practical tools, such as coverage of the Lean Canvas model
- Updated references, cases, and new examples throughout; and,
- Updated online resources

This book equips advanced undergraduate and postgraduate students of marketing strategy, entrepreneurial marketing, and entrepreneurship with the fundamental tools to succeed in marketing.

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# Contents

# Figures

# Tables

# Boxes

# Preface

Entrepreneurs often are unfamiliar with concepts of target market, price/quality relationships, price thresholds, distributor margins, and sales promotion techniques, and the importance of these factors in creating awareness and demand. Their lack of adequate knowledge in these areas results in a simplistic view of marketing problems. Many believe, for instance, that the only condition necessary for a sale is an innovative product or service. But the problem is, of course, that most new products are far from excellent, to say the least. Moreover, even excellent products will benefit from getting the price right, creating customer awareness, and ensuring availability.

However, for radically new products, the challenge is even greater. Never having been seen before, these products require customers to change their cognitions and behaviours. This explains why traditional marketing does not apply, and why a so-called 'effectuation' approach is required. This approach starts with the technology and the new product, and uses experimentation to find the right market segment and make inroads in the market. This book explains the effectuation approach and demonstrates how to use it in a creative way for marketing innovative new products.

The content of this book is the result of working with entrepreneurs and teaching graduate courses in Marketing and Innovation as well as Entrepreneurial Marketing at the Eindhoven University of Technology. The ideas have evolved over time and reflect emerging insights from entrepreneurship, new product development, and marketing literature. These ideas have been identified and integrated to create a coherent method. In contrast to traditional marketing, the effectuation approach adopted begins with the product and looks for market segments that fit, optimising options during the process. It builds on ideas from effectuation theory and the Lean Start-up approach but is rooted in and uses relevant marketing and sales concepts.

The method promoted complements new product development by combining it with a customer development process. Although regular new product development models include some attention to the link between the new product and (latent) customer needs, customer testing, and launch, typically the technical issues dominate the model and receive most resources. To compensate for this, we suggest organising the customer development process separately, as a complementary activity. This achieves a better balance and higher level of success for the entrepreneurial firm and its new product or service.

In this third edition, the text has been edited, and new references and examples added. The most important changes are a separate chapter on market research (Chapter 6) and a clear link with the Lean Start-up approach, in particular Lean Canvas. However, the chapters on sales and marketing capabilities have also been reworked. Although some suggestions had been made to abandon the traditional marketing instruments, I decided to keep them. They are more actionable than most alternatives and help people with a basic marketing training see the relationship more easily. The three challenges of customer value creation, building market presence, and developing customer relationships are used to tie things together.

This book and new edition would not exist without the help of many people. First, thanks to the anonymous reviewers whose feedback provided ideas for developing this third edition. Second, I want to thank my wife, Martha Chorney, who motivated me to make this new edition and helped manage the revision. She helped improve the structure, the content, and the original text, making it more appealing.

I hope this book offers the reader some new and exciting ideas and helps entrepreneurs to find their product-market fit.

Ed Nijssen

Chapter 1

# Using marketing to create a new business with radically new ideas

**Key issues**

- Define market opportunity and tech-entrepreneurs.
- Compare radical to incremental innovations
- Identify required changes in customer behaviour as an important barrier to entrepreneurial success.
- Discuss the importance of identifying a sustainable business model.
- Define marketing and sales and explain the effectuation marketing approach.

## 1.1 Entrepreneurship and radically new ideas: the need for effectuation

Every day, people come up with new ideas. Sometimes small, but every now and then, such an idea concerns something extremely innovative that can be developed into a radically new product or service: a new product or service that has never been seen before, but that is exciting and may even create a whole new product category or market. Such a new product or service represents a *market opportunity* that may become a financial success for the entrepreneur who came up with the idea and decided to develop it into a business. While new products are important, the trend of digitalisation and rise of the Internet of Things (IoT) have stimulated interest in and opportunities for developing smart products and their related services. Consisting of a combination of hardware and software, these products involve product-service systems that are often accompanied by performance contracts or subscription services and can be customised and optimised based on data collected across customers and use situations. Examples are inner-city mobility solutions, animal health monitoring solutions, and smart doorbells. Consequently, complexity increases and the distinction between products and services blurs.[1]

*Entrepreneurs* are people who act on a perceived market opportunity. They develop the opportunity into a business by creating a new product or service for a group of customers not served well by existing alternatives in the

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market. They are aware of the uncertainty but willing to take the financial risk involved.[2] They often feel the need, or even the urge, to pursue their luck and build their own businesses.

Many entrepreneurs aim to improve existing products and compete in existing markets. Their markets involve familiar products that are clearly delineated. Consequently, these new entrepreneurs know who their customers and competitors are. They can rely on *traditional marketing*, which focuses on identifying and targeting a particular customer segment and positioning a product to address this segment's stated (or latent) needs to grow sales. Its systematic and goal-oriented approach can help the nascent entrepreneur specify the features of the product or service, develop a pricing strategy, and create the right message and adequate promotional support.

In contrast, people with radically new ideas based on new technology are better defined as *(high-)tech* entrepreneurs. Based on new technology, their application often redefines existing markets by creating a new or altering existing product categories (e.g., action cameras, electrical and hydrogen cars, smart refrigerators or doorbells, fitness gadgets and Apps, and customised 3D-printed shoes). These entrepreneurs generally are engineers, data analysts or technology enthusiasts who have developed something unique that no one has seen before or that people have only dreamed about. They see the potential of their idea and confidently go about making a business out of it, even when first customers' reactions are sceptical. However, particularly if the new concepts they come up with are new for the market, convincing prospects to become buyers can prove extremely difficult.

Lack of experience and business knowledge generally does not scare these entrepreneurial minds away. They seek financial support from venture capitalists to help finance their new business. However, they usually have to invest heavily themselves, and take major personal risks too. Given the fact that nine out of ten start-ups fail, and because lack of customer demand for young firms' value offer is the number one reason for failure,[3] better understanding the marketing challenge involved is of the utmost importance. Only if the entrepreneur can create a product or service *and* a customer will the idea fly and a business take shape. To turn a new idea into a business requires, first and foremost, being able to create a product-market fit.

Based on the *level of 'newness' of a technology*, three types of new products are generally distinguished:

**(1) New versions of existing products:** (i.e., me-too products or line extensions) modestly new products that have been around for some time but, with a different marketing approach or minor change, can be revived and enjoy sales growth. Organically grown tomatoes in supermarkets is an example.

**(2) Incremental innovations:** extensions of existing products. These products fit current knowledge and market structures but bring something new to the equation offering extra value to the customer. LED displays or electric toothbrushes are examples. They generally do not require much behavioural change.

**(3) Radical innovations:**[4] these draw on new technology to produce products people have not seen before. These new products can often change markets, alter existing product categories or even make them obsolete. Examples include the light bulb and the telephone. These products do require learning and behavioural change to enjoy their value.

So, the more radical a product idea, the more likely people will need to change their perceptions and behaviours, and probably even need to update their definitions of product categories. The *marketing challenge* of these different levels of new products increases, exponentially, moving from extensions to radical innovation. Of course, the required marketing and sales investments (time and money) to achieve customer adoption and build the market will increase too.

For instance, tablets and smart televisions were easy to adopt because they represented simple extensions of functions already available on smartphones and computers. In contrast, the introduction of robots and instant diagnostics in the operating theatre has greatly improved the precision and success in tumour removal but its adoption is moving more slowly. It requires important new knowledge and behavioural change. Surgeons see their role diminished and have to work with new medical staff who understand and can operate this new, essential, medical technology. This new and useful technology is bringing about substantial change in the profession.

As the previous examples suggest, marketing for radically new products differs from marketing for line extensions and incremental innovations. The challenge to sell a radical new product is much greater. First, because radical new products affect existing product categorisations, existing market data often do not apply. Consequently, the business plans for these products or services are more uncertain. (For example, the anticipated market size for smartphones could obviously not be computed by simply combining or adding up the market data of computers, phones, and cameras.) Second, radical new products or services often involve behavioural change at the customer end; they require users to seriously change their behaviour to enjoy their benefits and thus derive value. Because people prefer to be efficient, they will only make the investment if they are dissatisfied with existing alternatives on the market or if the innovation offers something new that persuades them. Because most new products and services are far from perfect at introduction, their producers struggle to convince potential customers who are sceptical in response to 'eager sellers' who typically overvalue their products.[5]

### *Effectuation*

Radical innovations require a novel marketing approach that embraces the uncertainty caused by the new technology and focuses on customer discovery and creation. The unpredictability requires talking to and experimenting with innovative customers to identify the required product-market fit.[6] This conscious approach of 'transform the unexpected into opportunities' is called *effectuation*. [7] Effectuation theory suggests that the future cannot be predicted or controlled. But, by using small steps and experimentation, one can uncover and control the path of development. The iterative cycle of updating the status quo with new information relies on experimentation to address and control the uncertain environment and future. Aspirations and goals can be updated in the face of new information about market conditions and potential gains achieved in the process. Experimenting in this way helps young firms discover and build customers; in so doing, they can thus develop their product or service's advantage and achieve a sustainable market position for a particular group of customers, that is, customer segment. Effectuation explains how entrepreneurs think and learn in this process of discovery.[8]

Effectuation inverts the fundamental principles of predictive rationality, which consider the environment exogenous but predictable and assumes that foresight and planning can be used to adjust to trends and capture opportunities in the market (which underlies traditional marketing). In contrast, in the effectuation view, the environment is endogenous to the actions of 'effectuators' (which can be either firms or individual entrepreneurs) that can apply their resources in an attempt to contribute to and shape the future through commitments of their network of partners, investors, and customer contacts.[9] Consequently, the starting point in the effectuation are the resources the entrepreneur has or can gather via his or her network. These means are actively used to discover product-market fit.

While effectuation logic stimulates young companies to utilise all their available resources, effectuation marketing and value-based selling guide them in designating and exploiting their limited resources effectively to create value for customers.[10] Similar to solution selling, value-based selling focuses on using the sales function as a critical interface for co-creating with customers to enhance the value-in-use of a product or service, whereas effectuation marketing draws attention to the fact that markets are not homogeneous but consist of customer segments with different needs and sensitivities, which may change over time. Effectuation marketing and value-based selling help the young firm focus on discovering and building customers rather than just creating products or services.

The effectuation approach is closely related to the method of the lean start-up developed by Eric Ries.[11] Inspired by Lean Manufacturing, he proposed an approach of early market validation using repeated experimentation to prevent entrepreneurs from engaging in activities that added no value. Consistent with effectuation logic the lean method rejects pure analysis and long-term planning in favour of generating customer data to learn and mitigate uncertainty.[12] However, the focus of the method is on the product development process rather than the marketing and sales activities.

## 1.2 Developing your business model

What distinguishes an entrepreneur and start-up from existing firms is their search for product-market fit and a business model. Although a good product (or service) idea is important, a start-up's viability and survival depend on whether users or customers can be found, and a viable *business model* can be developed. A business model explains how a firm makes (or will make) money.[13] It explains why and how the market opportunity translates into the entrepreneur's *business opportunity*.

Figure 1.1 shows the business model concept at an aggregate level. On the left-hand side, we see the value creation and delivery system of the start-up. On the right-hand side, we see the customers' consumption system; it involves customers recognising the value put forward by the start-up and their willingness to pay for this value with, for instance, their data or – most of the time – with currency. If these two parts of production and consumption are in balance a sustainable system will exist. A third part of the model concerns the value exchange system displayed at the bottom of the figure. It includes the negotiations and transactions between the two market parties, that is, the entrepreneur and its (prospective) customers. Only if the entrepreneur's results from sales (and other income related to the exchange) exceed the cost of value creation and delivery will a profit be made, which can be used to compensate shareholders for the risk they took and make future investments to maintain or expand the business.[14] The anticipated market size and market share

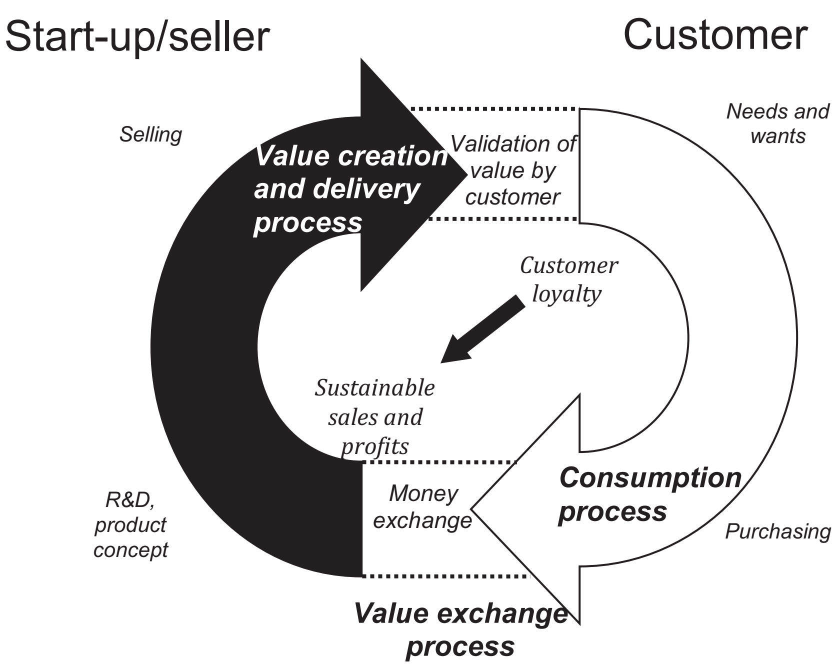


*Figure 1.1* The business model concept

matter also, as this is an indication of how sales volume can develop. This impacts (decreases) cost price because with increasing volume, cost of raw materials will decrease and efficiency increase. A final question is whether the firm will be able to defend its business. Sustainable competitive advantage depends on the assets and skill needed, being hard to copy. Therefore, a patent or unique skill (e.g., product leadership or extremely valuable customer knowledge and relationships) is important.

The role of marketing and sales is to *align* the two core processes of the business model and *facilitate* the process of exchange. Marketing and sales, as boundary functions, are customer and market oriented and have many concepts that can help create the necessary product-market fit.

A business model concept that focuses on early market validation is Lean Canvas (see Figure 1.2).[15] The tool was adapted from Alex Osterwalder's popular Business Model Canvas[16] and focuses on finding *customer problems worth solving*. It consists of nine basic building blocks that direct an entrepreneur's attention to the most fundamental business questions. These include: What is our product (service) and how does it differ from existing alternatives in the market? Who are our target customers and what solution do we offer them? How will we distribute the product, that is, reach these target customers? Why and how much will these customers be willing to pay for our product (service)? Does it cover all costs? And, how can we defend our business from competitor attack? Finally, the model emphasises key measures. Because it adheres to the

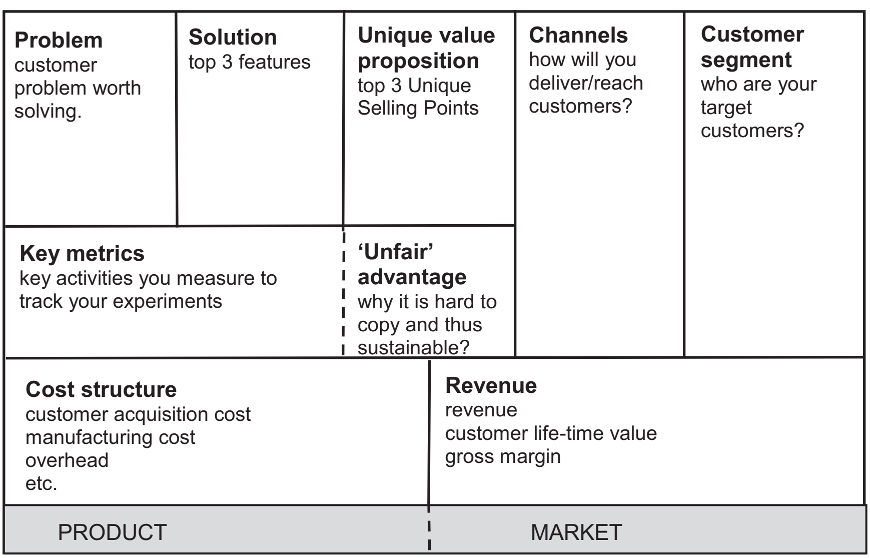


*Figure 1.2* Business model Lean Canvas (adapted from Maurya 2012)

lean approach, at each stage of development a validation is required which should be qualified and /or quantified.

For a business model to work, three requirements should be met:

1 the start-up's new product should have substantial customer value;
2 a sufficiently large group of (target) customers is convinced that the new product outperforms alternatives in the marketplace;
3 this group should be willing to engage in exchange at a price that compares favourably to the development, production and distribution cost involved.

*Customer value*, from the customer's perspective, is the difference between the benefits a product delivers and the cost a customer incurs (customer value = benefits - cost). The benefits extend beyond functional benefits to, for instance, emotional benefits. The costs include but are not limited to the price. It also includes customer switching costs, for example, customers' time and mental effort required to learn how to use the new product. These costs can prove a real barrier for customers. Entrepreneurs often overlook these 'hidden' economic and psychological costs when pricing their products and predicting the speed of market penetration. If the customer value is positive, the product's chances of being adopted increase. If the value also compares favourably to that of existing alternatives in the market (called 'unfair advantage' in the Lean Canvas model), things look bright.

Different business models can be developed for similar situations or new products. Understanding the pros and cons of each model before making a choice is useful. We identify a few different types.

First, there are the integrated business models, where a firm designs, develops, manufactures and sells its goods or services. Many firms rely on this model (e.g., traditional bakeries). A second model has firms focus on a particular role, for instance, brand and customer relationship management. Today, many firms own and sell a brand but outsource most other activities. Many fashion designers and clothing companies, for example, develop and market the new products for their brand but rely on Asian partners to manufacture and ship them. Third, there is the so-called razor blade model, where substantial amounts of income are earned on a particular derivative facet of a product system. The name refers to the success of Gillette, the razor company. It is based on the idea of giving the handle away and earning money selling the blades. Firms applying this model include telephone companies that offer a new telephone for free (or at a very low price) and make money selling minutes of calls, or copier firms that sell printers at a very low price and make money on cartridges, and professional document flow specialists that live from servicing their machines rather than from the margin on the machines themselves. Finally, there are the subscription and advertising models. These rely on periodic (e.g., monthly) fees, or paid advertising to users to make money.

### Doing it right – Check your business model

A useful test for any business model involves a combination of a narrative and numbers test:[17]

1 *Narrative test*. This test asks: 'Does the story make sense?' and 'Does the proposed product or service indeed represent unique value to a group of prospective customers, and will this group be interested?' It should also address the questions of: 'Why is the start-up in a unique position to develop this value and how well is it able to protect its position?' 'Why will intermediaries also cooperate?' When the story is told, it should make sense; using this critical reflection and basic questions, the story's validity can be assessed.
2 *Numbers test*. 'Do the profit and loss add up?' 'What kind of resources are necessary, and how does this affect cost?' 'Is the anticipated stream of revenue and cash flow a sufficiently healthy basis for sustainability?' By checking assumptions of production cost and perceived customer benefits with experts one can simply see whether the numbers add up.

In each episode of the BBC television programme *Dragons' Den*, we see how venture capitalists evaluate and scrutinise the pitch of entrepreneurs (narrative test) and ask for the general numbers of market size, cost, and sales to check whether these numbers add up for the proposed start-up. *Dragons' Den* and its international variations can be found on YouTube.[18]

The Internet, with its instant communications and interactivity, has introduced completely new business models. For instance, many firms in the game industry started by first posting games for free and then making users pay for updates. eBay and YouTube get their income from advertising rather than from selling auction and video space. Two excellent examples are the T-shirt company Threadless, which offered customers the possibility to design their own T-shirt and enter a competition to have it produced (see example), and Spotify, which offers music in paid or free-with-advertising subscriptions. Although we have stressed the importance of paying customers, we should recognise that the business models of several disruptive innovators generate cash flow in a different way. They initially focus on generating users. These so-called *tech unicorns*' company value is primarily based on their growth potential and expected development. Recently *The Economist* raised questions about the validation of many of these young firms, suggesting that many of them may be overvalued.[19]

### Example – The Internet and new business models

Threadless is a Chicago, Illinois-based company that sells T-shirts. The firm has been making millions from 'crowd sourcing' before anyone knew what the term meant. The firm excels in social media and web marketing and it has more than 1.5 million followers on Twitter and more than 133,000 fans on Facebook. Their T-shirts typically cost $18. Founded in 2000, the start-up had immediate and huge success. In a 2008 *Newsweek* article, revenue was estimated at $30 million (for 2007). The organisation has an interesting business concept. What sets this firm apart? T-shirt designs are submitted by visitors to the website, voted on by the user and designer communities, and the top-ranked designs are produced, then sold online (Figure 1.3).


*Figure 1.3* My personal T-shirt design

The unique feature of Threadless's business model is the customer involvement. Customers are co-creators, and, as a result, they feel very empowered and extra satisfied. Co-creating and voting on the designs increases the positivity of their attitude towards the company and its T-shirts. It also increases customers' willingness to buy the shirts, as recent academic research shows. Visitors even prefer the crowd-created designs over those of famous fashion designers. This confirms that the dynamics and logic behind the model differ from those of regular fashion houses and stores.[20]

The emergence of peer-to-peer sites has been another intriguing Internet development and business model innovation. Firms such as Airbnb, Uber, Blablacar and Eat-With are overhauling the traditional business model by teaming up with consumers who are willing to rent their apartments, cars, or culinary skills for cash. This sharing economy has created markets out of things that would not have been considered monetisable assets before. These new providers are lean organisations offering consumers the opportunity to become businesspeople on a part-time and flexible basis. They have created ingenious infrastructures that allow people to find and interact with each other, and to engage in exchange for a fee. These infrastructures or platforms wield great power as brokers between buyers and sellers of the services.

The new collaborative models offer more affordable services to consumers, but are arguably more resilient too. While hotel and taxi supply are limited and any increase involves large-scale work, peer-to-peer accommodation and capacity is agile, limited only by the willingness of people to offer up their empty rooms or offer a ride. Customers are attracted to this peer-to-peer model for economic, environmental, lifestyle but also personal reasons. A key factor in the marketing approach is assuring trustworthy reviews, high service quality at a low price and attractive extra income for the person renting out his/her apartment or car.[21]

**Example – Exploring alternative business models**

Start-ups often adopt a certain business model, but in the process of looking for their best business opportunity, they shift to another model.[22] It is part of the experimentation stage to discover customers and validate the value of the new product for the market at large. For instance, the start-up company Inmotio began selling a monitoring device for sport teams. The product included jackets with sensors (for each player) and receivers that were placed at the four corners of a playing field to monitor several vital functions of the players and to measure their position and movement. The information gathered by the system helped coaches fine-tune individual players' efforts and team performance. However, after a while, Inmotio realised that the materials could also be rented out to teams and that the new firm could make money assisting teams by analysing the data and selling advice and consulting. In this structure, sports teams did not have to make a large initial investment and, as a result, were more willing to try and buy the service.

## 1.3 Defining marketing and sales

Historians have argued that marketing is a combination of the words 'market' and 'getting'.[23] Two interpretations of marketing exist: (1) *marketing as a function* or set of specialised activities performed by a (group of) specialist(s) and (2) *marketing as a philosophy.* [24] The former refers to the marketing person (or department) and their activities, such as market segmentation, advertising, and pricing. Two levels of marketing activities are generally distinguished: strategic and tactical activities. Marketing strategy deals with issues such as: Which customer groups to target? When and how to reach them? Tactics involve activities related to price, place, product, and promotion, so for instance, determining the actual product, setting its price, developing channels of distribution for it, and creating product information and advertisements. Tactical decisions should be aligned with strategic decisions and are used to detail and implement the marketing strategy.

Marketing philosophy refers to the need for firms to have a market-oriented culture which promotes all employees to *systematically* use market information and make market-informed decisions in each of its business processes. Market information can help employees understand the mechanisms underlying customer behaviour and understand the drivers of success in the marketplace against the backdrop of competitors and their behaviours. Because *markets* are places where customers and providers meet for exchange, customer and competitor information are important. Customer and competitor information should be collected, disseminated, and used systematically. By discussing such information, a joint mindset is developed; by using the information in decision making, the organisation will *act in a market-oriented way.* A firm's marketing specialists are expected to facilitate the creation of a market-oriented culture and behaviours in an organisation.[25] If marketing performs its task well, it will create satisfied and loyal customers. Consistent with this, marketing has been defined as identifying and developing lasting customer relationships, and a marketer's time horizon is generally long term.

By discovering the 'right' customer segment and using arguments that resonate with this group, a customer base can be created and then extended. Yet, in the case of a start-up, this customer development is not straightforward. The main question is whether the newly developed product has properties that are recognised by customers and are valuable enough for them to switch from their current product and supplier to the new product and provider. The more radical the new product, the harder it will be to find the relevant group of potential customers. More experimentation or probing of the market will be required to make things work. By engaging in co-creation with innovative customers of the target segment and using rapid prototyping, an entrepreneur quickly finds out whether the original idea of a new solution or product makes sense and can be developed into a new business.

This brings us to the difference between *traditional marketing* and *effectuation marketing*. Traditional marketing focuses on existing markets whose future can be predicted and uses a planning approach to grow the business.[26] Existing businesses set goals to sell more to current customers, or acquire new customers for its products. In contrast, effectuation marketing is geared to entrepreneurs and their start-up firms which are unproven and first need to establish product-market fit and find their business model. It begins with the entrepreneur's new technology or product idea and, through experimentation with innovative customers, tries to find a product and thus solution to a problem of a certain (maybe emerging) customer group. Because the outcome cannot be predicted, small iterative steps are used to discover the future. The aim is to find and/or create a new market. Effectuation marketing thus is about experimentation with innovative prospective customers and ensuring that the application that is developed will also resonate with other (more average) customers in the marketplace.

*Sales* is the operational task involving prioritising and meeting potential customers as well as closing new deals. Consequently, salespeople generally have shorter time horizons than marketeers. Sales is an important function because it generates cash flow. Sales should 'hunt' for new customers to expand business and turnover and 'farm' existing customers to ensure the firm's 'bread and butter'. Satisfied customers are important because they may make repeat purchases and become loyal. Moreover, they may act as references to persuade other potential customers. Identifying potential customers, educating them and providing input to the firm's engineers to improve the product based on customer feedback are critical tasks.

Existing frameworks for selling typically assume that the salesperson has a ready, or fully developed, product to offer, and can focus all efforts into making the sale. Although this may involve listening to the customer carefully, the goals – making sales and generating income – are straightforward. Yet, in the case of a start-up, the fully developed new product is a myth.[27] Consequently, extraordinary sales capabilities are required, such as collecting detailed information about potential improvement and redesign. This resembles more solution- or value-based selling than so-called transaction selling. The former two selling approaches focus on understanding a customer's business processes, and related problems, and helping develop a solution together with the customer. Discovering those customers who most appreciate the new product solution and working with them to improve it to a level where additional customers will accept it too is an important task of the salesperson in an entrepreneurial setting. Once this validation stage has been successfully completed, sales efforts may be stepped up and extra salespeople can be hired.[28] Then, the firm can switch to regular or traditional selling practices.

In conclusion, effectuation marketing, rather than traditional marketing, is necessary for entrepreneurs of radically new ideas to enact market opportunities and convert them successfully into a new business. It is not linear and planned, but relies on creativity, iteration, and searching for suitable partners to seize the new opportunities as they emerge. It concerns a process of continuous experimentation to reduce risk and compress time to discover and build customers and create competitive advantage. Table 1.1 summarises differences between traditional and effectuation marketing.

*Table 1.1* Juxtaposing traditional and effectuation marketing

| | *Traditional marketing* | *Effectuation marketing* |
|---|---|---|
| Market situation | Known market | Unknown market |
| Approach | Planning, predict change and adapt | Experimentation to reduce uncertainty |
| Aim | Growth, leverage or extend business model | Survival, find business model |
| Market insights | Formal market research and intelligence | Informal co-creation with innovative customers |
| Resources | Well-planned budgets and anticipated effects | Limited resources, creative use of means |

## 1.4 Beyond stereotypes

Many entrepreneurs are sceptical about the value of marketing. Stereotypes about it prevail. Why? First, many entrepreneurs are engineers. In general, they tend to consider only the technical issues as the challenges to be met and as worth spending time on. Everything else is 'soft' or 'not concrete enough'. This attitude leads to a polarised market view and to in-group–out-group thinking. As many marketeers lack technical backgrounds, they are part of the out-group.

Second, many engineers have limited understanding of marketing and sales.[29] They lack adequate knowledge about the commercial disciplines and may, for example, confuse marketing with advertising. This limited understanding results in a simplistic and incorrect evaluation of marketing's contribution. Even advocates of lean start-up frequently make this mistake. They often mention that marketing is no help, without explicitly stating that they mean "traditional marketing is no help for entrepreneurs selling radical new products".

Third, a lack of knowledge about the commercial aspects often results in entrepreneurs having a too simplistic view of marketing and sales problems. They may believe that the only condition necessary for a sale is an innovative product or service. They fail to see or understand that the product's unique selling points require carefully designed communication using a customer point of view and considering the decision-making unit of the customer. As a result, they may oversimplify or perform the market research and develop the marketing themselves, often making obvious mistakes in the process.

Discussion between engineers and marketeers or salespeople may help to resolve these issues. Through measurable activities that demonstrate the contribution of marketing activities to the bottom line, marketeers are most likely to persuade others, including the engineers involved. This may include tactfully explaining that although excellent new products might 'sell themselves', most new products are, unfortunately, far from excellent. They can point to the important role marketing can play in establishing product-market fit and creating customers for the new firm, and the fact that most start-ups have been found to fail not due to problems with the technology or engineering but from inability to find and persuade customers.


**Summary**

- Entrepreneurs are people with new ideas who develop their own businesses. These business ventures are referred to as 'start-ups'.
- Radically new ideas differ from incremental innovations because they typically require substantial behavioural adjustment from customers and often change product categories, making prior market data largely obsolete.
- The first task of a start-up is to find this business model. It explains how (the product–market fit) and why a start-up will make money (unique value proposition, and sustainability of its competitive advantage).

- Effectuation marketing and solution- or value-based selling are important business functions for creating a customer.
- Effectuation marketing differs from traditional marketing by using experimentation rather than prediction to find and build customers.

## Notes

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2 McMullin and Sheperd (2006).
3 https://fortune.com/2014/09/25/why-startups-fail-according-to-their-founders/.
4 Guiltinan (1999).
5 Gourville (2006).
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7 Sarasvathy (2001).
8 Sarasvathy and Dew (2005).
9 Read et al. (2009), p. 14.
10 De Jong et al. (2021).
11 Ries (2011).
12 Teece (2010); Ghezzi and Cavallo (2020).
13 Foss and Saebi (2017); Magretta (2002).
14 An exception to this logic are the so-called tech unicorns that aim for a large customer base although they keep burning money. The investors hope that eventually these firms will dominate their market and turn a profit. The Economist (2019).
15 Maurya (2012).
16 Osterwalder and Pigneur (2010).
17 Ibid.
18 www.bbc.co.uk/programmes/b006vq92 (accessed 16 December 2016).
19 *The Economist* (2019).
20 See www.hytencontent.com/2010/07/t-shirts-and-social-media-how-threadless-gets-it-right/#.WJBJe9xhnX4 (accessed 31 January 2017); and Fuchs and Schreier (2011), respectively.
21 www.theneweconomy.com/business/the-sharing-economy-shakes-up-traditional-business-models (accessed 16 December 2016).
22 Ehret et al. (2013).
23 Kotler and Keller (2006).
24 Moorman and Rust (1999).
25 Li and Calantone (1998).
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27 Onyemah et al. (2013).
28 Leslie and Holloway (2006).
29 Lynn et al. (1996).

Chapter 2

# Identifying an application and market

**Key issues**

- Discuss the importance of considering several market opportunities before moving ahead.
- Understand the difference in the evaluation criteria that experienced versus inexperienced entrepreneurs use for assessing business opportunities.
- Understand why solutions sell and products don't.
- Present the bowling alley as a way of conceptualising company development over time and as a metaphor for finding your first customers.

## 2.1 Entrepreneurship as opportunity seeking

Entrepreneurship concerns the discovery, evaluation, and exploitation of a market opportunity, and turning it into a business opportunity.[1] A *market opportunity* refers to matching unmet needs in the market with new ideas or technologies to create a product application (or service), to meet those needs. A *product application* thus is the link between an entrepreneur's new idea or technology and the market. An entrepreneur's main challenge from a business perspective is to find a viable product application, for which customer demand will compensate for the manufacturing and marketing costs involved, that is, for which there is a business case.

An entrepreneur can significantly enhance the success of bringing a technology to market by identifying multiple potential product applications first. The process of reviewing a wide variety of possibilities prevents automatically choosing the most obvious application for a technology. However, the identification of several applications – and thus market opportunities – prior to first entry is not common practice among entrepreneurs. In an in-depth study of a set of eight spin-offs from MIT, Shane[2] found that *no* start-up had identified more than a single opportunity, even when better opportunities were easy to spot. The MIT entrepreneurs had simply ignored them. A larger study[3] showed similar results and confirmed that as many as 72 per cent of entrepreneurs identified only a single opportunity.

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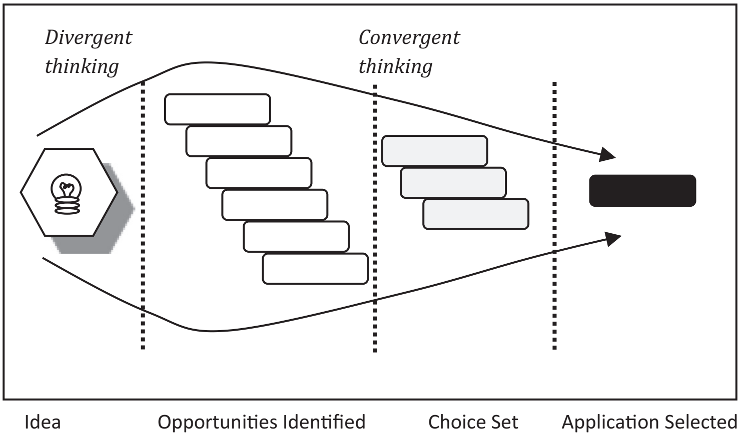


*Figure 2.1* Thinking about market opportunities

Inexperienced entrepreneurs generally do not look beyond the first application (and thus market opportunity) that comes to mind. In contrast, experienced or serial entrepreneurs identify several options before making their decisions. Experienced entrepreneurs search more broadly and creatively. To avoid becoming committed to an option too early in the process, they focus on developing a choice set of opportunities before evaluating and deciding. Their critical attitude and approach significantly increases the quality of ideas generated and their selection. As Figure 2.1 shows, this process involves divergent and convergent thinking. Experienced entrepreneurs engage in what is called *distant search* while novices quickly get stuck in *local search*.

The effectiveness of the search process for market opportunities resembles an inverted U. By stimulating creativity, multiple excellent options are generated, but after some time, the idea generation becomes strenuous, costly, and less effective (diminishing marginal returns). Consequently, entrepreneurs should engage in search, ensuring they look beyond the obvious and stop when no further exciting new ideas emerge.

**Example – Searching process for applications for electronic beam control for LEDs[4]**

Imagine a new start-up focused on identifying applications for a new technology: ‘electronic beam control’ (EBC), using advanced liquid crystal (LC) technology to electronically, rather than mechanically, manipulate the light of light-emitting diodes (LEDs). A unique mix of light-scattering liquid crystals are integrated in a thin, transparent LC panel and placed in front of an LED to create a luminaire.[5] Specifically, the panel serves as a lens to electronically control or focus the lamp light.

The advantages of this solution include high-quality beam shaping (dynamic lighting); low maintenance (no mechanical parts); a compact form with the option of a thin, transparent panel which can be placed in front of standard LED light sources or luminaires; and easy operation (use of sensors or software).

Thinking creatively about applications for the new technology, several market opportunities were identified, including automotive, torch lighting, photo camera flash, regular lighting, retail display lighting and so on (see Figure 2.2). After a review, the entrepreneurial team decided to focus first on applications for the automotive industry, particularly in-car applications (e.g., providing the driver and passengers with better light when getting in and out of the car or for reading). The choice was motivated based on innovativeness of the market and large market size.

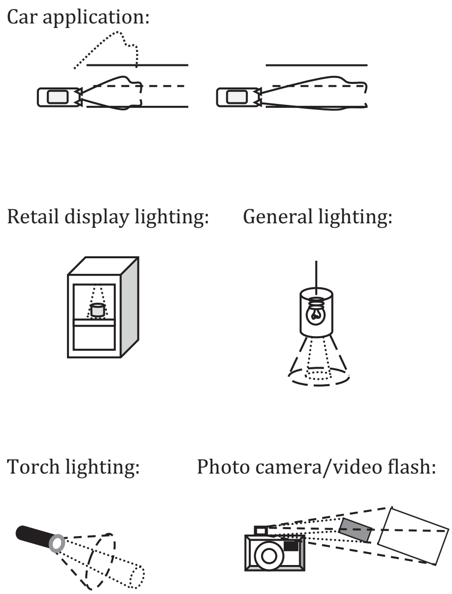


*Figure 2.2* Set of market opportunities for EBC technology (adapted from van Bommel 2010)

## 2.2 Evaluation criteria of the experienced entrepreneur

A systematic review of options helps an entrepreneur select the most promising alternative and will increase the start-up's chance of success. However, it is important to note that experienced entrepreneurs use different *evaluation*

*Table 2.1* Contrasting the evaluation criteria of novices and experienced entrepreneurs (based on Gruber et al. 2008)

| *Novice entrepreneurs focus on* | *Experienced entrepreneurs focus on* |
|---|---|
| How novel the idea is | Whether a customer problem is solved |
| The extent to which the idea is based on new technology | The ability to generate positive cash flow |
| The superiority of product or service | The speed of revenue generation |
| The potential to change the industry | The manageable risk |
| Their intuition or gut feeling | Availability of partners with whom to develop the venture |

*criteria* to evaluate market opportunities than their less experienced counterparts. Table 2.1 summarises the sets of criteria that inexperienced and experienced entrepreneurs rely on.[6]

Experienced entrepreneurs focus on the likelihood that the application can be developed successfully, solves a problem for a particular customer group, and will generate money in the foreseeable future. So, they quickly assess whether they can see a viable business model. They immediately assess whether the market opportunity reflects a business opportunity.[7]

In contrast, inexperienced entrepreneurs focus on the novelty of the idea and technology. They are typically interested in how the new technology may change the industry rather than how quickly it can be developed into a viable business. They also tend to rely on their gut feeling for selecting an opportunity rather than how quickly it will make money and a profit. In other words, they fail to do a simple numbers test for the idea. Lack of business experience and management knowledge makes them focus on the idea and product application rather than on the business logic behind it.

The differences between experienced and inexperienced entrepreneurs resemble the results from eye movement analyses of experienced versus novice chess players. When looking at pieces, experts produced a greater proportion of fixations on relevant pieces than did novices, who instead look at all pieces and the chess board in general.[8] Expert chess players perceptually encode chess configurations rather than individual pieces, which guides their eye movements and thinking. Like expert chess players, experienced entrepreneurs do not separately evaluate the technology, product, and market, but assess the potential business model (configuration). They may rely on *analogical reasoning* for this purpose. That is, using knowledge about business models used in other industries they quickly draw parallels and conclusions for the newly proposed application and situation (e.g., evaluate ideas for better quality and variety of meals in hospitals based on the catering and business model used on cruise ships).

## 2.3 The role of marketing knowledge

While marketing knowledge can facilitate searching for market opportunities and identifying useful applications, sometimes it actually hampers it. Research by Gruber *et al.* [9] showed that inexperienced entrepreneurs with marketing knowledge found it extremely hard to avoid becoming committed to a particular market opportunity early in the process. They had extreme difficulty in coming up with additional product applications. However, experienced entrepreneurs with marketing knowledge did identify significantly more opportunities than their counterparts without such marketing knowledge (see Figure 2.3).

A possible explanation is that inexperienced entrepreneurs rely on traditional marketing principles, applying the concepts in a rational and linear way. They focus on current customers and product categories. This limits them in their thinking and creative process. In contrast, the experienced entrepreneurs use their marketing knowledge more flexibly. Their marketing knowledge complements their prior experience and technological knowledge, enabling them to explore options more broadly. It does not limit but actually promotes the exploration of distant and unfamiliar options. Experienced entrepreneurs with both marketing and technical knowledge skilfully navigate between latent customer needs and alternative technical solutions.[10] However, their joint marketing and technical knowledge not only stimulates their creativity in looking for market opportunities, it also helps them develop product-market fit for any of these options (see Figure 2.4).

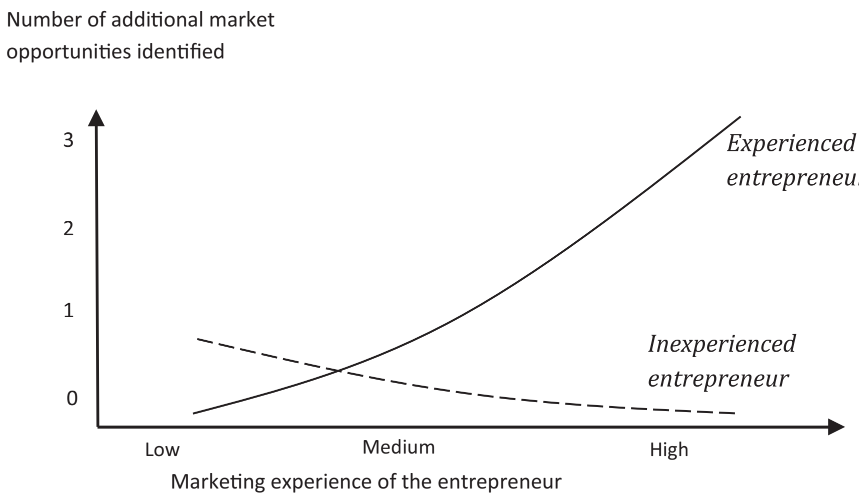


*Figure 2.3* Interaction between prior entrepreneurial experience and marketing experience (adapted from Gruber et al. 2008)

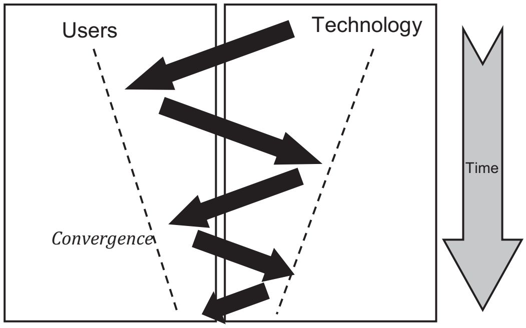


*Figure 2.4* Experienced entrepreneurs navigating for the solution

## 2.4 Developing your bowling alley model

Moore[11] suggests using the concept of a *bowling alley* to illustrate the entrepreneur's challenge to select the first and best product application. He argues that to gain market momentum, entrepreneurs should target a niche (*the first pin* in the model) that can help open up a larger market (and preferably will lead to *a strike*). The niche refers to the first application identified and selected. This first application should be feasible from a technological *and* business point of view. Targeting this application should help secure the firm's temporary survival, but also provide information, experience, and funding that will facilitate conquering other, subsequent applications and their related market segments or niches (see Figure 2.5).

Each subsequent niche (or *pin*) will require its own complete product application. Yet, customers will find it much easier to buy in if the provider has demonstrated its ability to service an adjacent niche, with satisfied customers as its result.[12]

Moore's key message is that an entrepreneur should develop a vision for company development. The bowling alley stresses the existence of multiple product applications and the need to select the first pin carefully. The concept promotes the development of scenarios for niche expansion ('What would happen if …?') and choosing the best scenario for a strike, that is, to grow the firm's business over time. By addressing the right application first, the entrepreneur can enhance its initial success, which may have great impact on subsequent growth of the business. In a similar way, the wrong choice of the first pin or product application can seriously slow down and limit the entrepreneur's growth potential.

From experience, we know that high-tech entrepreneurs find making the right choice difficult, and more importantly, that they tend to go for the technologically most challenging option rather than develop the application that makes most business sense. Entrepreneurs often underestimate the time required to turn their technology into a working prototype or to produce the new product, and they overestimate customer interest for the application and

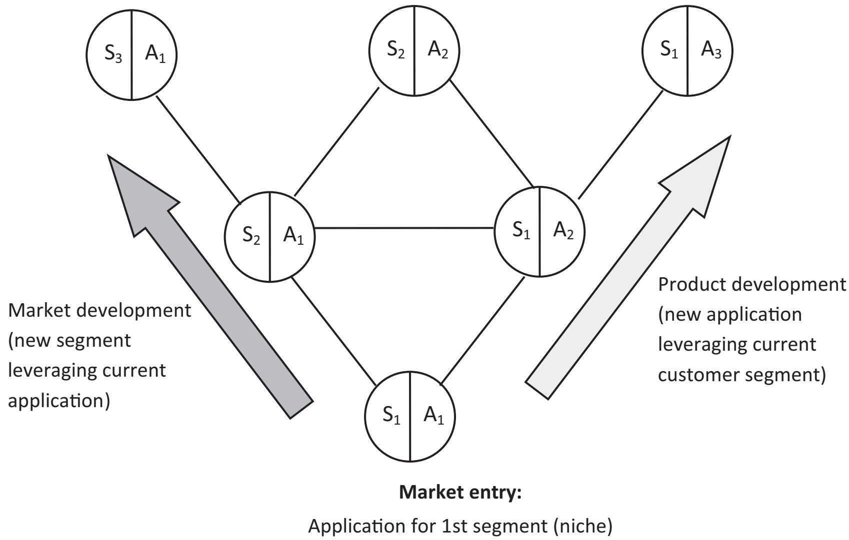


*Figure 2.5* The bowling alley model (adapted from Moore 2006)
Note: "S/A" refers to product application and market segment respectively.

'pot of gold at the end of the rainbow'. However, both are recipes for disaster and bankruptcy. It is better to look for quick customer feedback from innovative customers before sinking a lot of money into prototypes.[13]

A management tool to select the first application from a set of alternatives is the *real options approach*. [14] A real option is the right – but not the obligation – to undertake certain business initiatives, such as deferring, abandoning, expanding, staging, or contracting a capital investment project. For example, the opportunity to invest in the expansion of a firm's factory or to sell the factory are real options. Whereas conventional financial options refer to assets traded as securities, real options refer to assets that generally cannot be or are not traded. Because it forces decision makers to be explicit about the assumptions underlying their projections and decisions, real option value (ROV) is useful in business strategy formulation. While ROV can be used to select a single best option, it can also be used to analyse the most desirable sequence in product applications.

Our simulations confirm[15] that, like the 'first pin' in the bowling alley analogy, an entrepreneur should choose a simple application first, one with relatively high technological feasibility. Successfully developing and launching the first application will result in learning spillover that increases the chance of successfully developing and marketing a more difficult application later. Inter-project learning in the case of multiple projects making use of the same underlying technology will help the young firm successfully address subsequent opportunities. Using the extended real options approach, we also evaluated the options of the start-up from the previous example of electronic beam control technology for LEDs. Our results confirmed that first selecting the technologically simple retail application and then the technological challenging automotive application would have resulted in a maximum overall ROV for the imaginary start-up.

This conclusion and related advice are consistent with the *principle of affordable loss*: accepting risk but limiting expenses to protect the start-up's options early in the process. The results also support the importance of thinking in technology trajectories and managing them well.

## 2.5 Products don't sell, solutions do!

Despite entrepreneurial enthusiasm, new venturing is risky. Most start-ups fail; around 40 per cent fail in the first year and 90 per cent after 10 years.[16] Several reasons explain the high *failure rate*, but one is very prevalent: many entrepreneurs are so focused on their products and product features that they forget to carefully identify the customer problem they want to solve. They forget that their new product or invention is bound to fail unless it addresses a particular customer need. These entrepreneurs simply make assumptions rather than test the customer value of their product (application). They are in love with their innovation and lack objectivity as to its usefulness.

Entrepreneurs can increase their chance of success substantially by realising that they sell a solution rather than a product. Value is not what a provider creates, but what customers experience; what they want to use and pay for. To customers, products are *a means to an end*. Customers will be interested in a new product and technology only if it solves a specific problem, and particularly if it does this better than any other option available on the market today.

A brief example illustrates this point. A specialist selling a high-speed train may emphasise the technology used (e.g., magnetic fields) and say that the new train can travel at a speed of 350 kilometres per hour, a wonderful accomplishment. However, from a customer point of view, technology and speed are less relevant. A customer will be interested in the implications: the reduction in travel time, the train's safety record and comfort, for instance. The same is true for transportation firms that buy and operate trains. They will wonder about service sensitivity and reliability. In other words, consumers and business customers look for the *benefits* of a product and its technology.

The better an entrepreneur uses a customer perspective when introducing a new product, the more likely customer inhibitions will be lifted, and the chance of market success increased. Table 2.2 shows the product versus customer focus of selling a new product. In the first, the emphasis is on the features and specifications that follow from the technology, whereas the latter emphasises the link between product attributes and customer needs. To customers a product application is a 'bundle of attributes' with each attribute offering particular benefits. Together the set of benefits represents the quality of the solution to the customer's problem. Not all attributes matter; only salient ones do. Salient attributes

*Table 2.2* Product versus customer orientation

| | *Product orientation* | *Customer orientation* |
|---|---|---|
| **Begins with …** | Technology | Customer |
| **Sees product as …** | Focal point | As means to goal |
| **Emphasises in discussion with customer …** | Features and specifications | Attributes that deliver benefits |

are those attributes that customers perceive important in their decision and think to be related to their goal.[17] If the new product's benefit evaluation exceeds that of alternatives in the market it stands a chance of being considered and adopted.

### Summary

- Experienced entrepreneurs focus on a new technology's ability to solve a customer problem that matters and that will generate revenue rather sooner than later.
- By identifying a range of options market opportunities before selecting the first application and market, entrepreneurs can enhance their success.
- For a first product application, it pays to select a challenging but feasible option before aiming for a very difficult product application. This strategy is in accordance with evaluation criteria used by experienced entrepreneurs.
- The bowling alley concept offers a model of how to develop your business sequentially, particularly when a new technology is your starting point. It stresses to focus on a niche that can open up other future business.
- A good application offers a solution to a customer problem worth solving.

## Notes

1 Shane (2000).
2 Shane (2000).
3 Gruber et al. (2008).
4 Based on van Bommel (2010).
5 Hikmet and van Bommel (2006).
6 Gruber et al. (2008).
7 Baron and Ensley (2006).
8 Charness et al. (2001).
9 Gruber et al. (2008).
10 Griffin et al. (2007).
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12 Popovic and Fahrni (2004).

13 Onyemah et al. (2013).
14 Huchzermeier and Loch (2001).
15 van Bommel et al. (2014).
16 Dimov and de Clerck (2006).
17 Woodruff (1997).

Chapter 3

# Detailing the market

## Segmentation and positioning to maximise the value of the product application

**Key issues**

- Explain why different applications and technologies often coexist in one market.
- Explain how to identify the target segment for a new technology and its application.
- Discuss positioning as a way to enhance the perceived value of the new product application.
- Explain the use of customer feedback and co-creation with first, innovative customers as ways to validate assumptions about customer demand and ability to create product-market fit.

### 3.1 Conceptualising the market

Many people think that 'market' refers to customers or customer demand. But these are only one part of the market. The *market* is where supply meets demand and exchange takes place. The market is also where the price or 'going rate' is determined. *Supply* refers to sellers competing for customers in the marketplace. *Demand* involves prospective customers trying to satisfy their needs.

Abell[1] proposed a model that is still widely recognised for conceptualising a market. It is useful for tech-entrepreneurs because it explains why multiple applications and their technologies often coexist in one market.

Although markets may seem homogeneous, generally different groups of customers can be distinguished based on their needs and buying behaviour. Customers have not just a single need, but rather a set of related needs that they try to satisfy (e.g., opening a door but also locking it, or also needing a door that can automatically open and close, or is burglar proof). Because some technologies and their applications are better at satisfying different combinations of needs than are other technologies, certain customer groups will be particularly attracted by a certain technology (e.g., most people's houses have a simple door handle and lock, but businesses with high traffic, or where people have to carry things and cannot

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use the handle may prefer an automatic door). This explains why certain customer groups may prefer one technology's application over another.

Consistent with this logic, Abell's conceptualisation of the market consists of three dimensions: (1) alternative customer groups; (2) customer needs that exist in the marketplace; and (3) alternative technologies used for the different product applications (see Figure 3.1).

The first dimension of Abell's model, customer groups or segments, refers to the question: *Who* are the customers? In most markets, several groups of customers exist. The second dimension addresses the question: *What* needs do these customer groups have? Although the vertical axis shows all needs, different customer groups have different sets of needs. By ordering the needs from basic to high and ordering the customer groups from most to least sophisticated, a logical picture emerges. The third dimension refers to the question: *How* are needs satisfied? Different technologies and their applications are expected to be better able to address the set of needs of some segments than others. At any point in time, different technologies and thus applications coexist.

Figure 3.1 applies Abell's ideas to the lighting market. Available technologies range from candles, to light bulbs, to LEDs. Several customer groups and a list of needs are also shown. Inside the matrix, we find the actual products

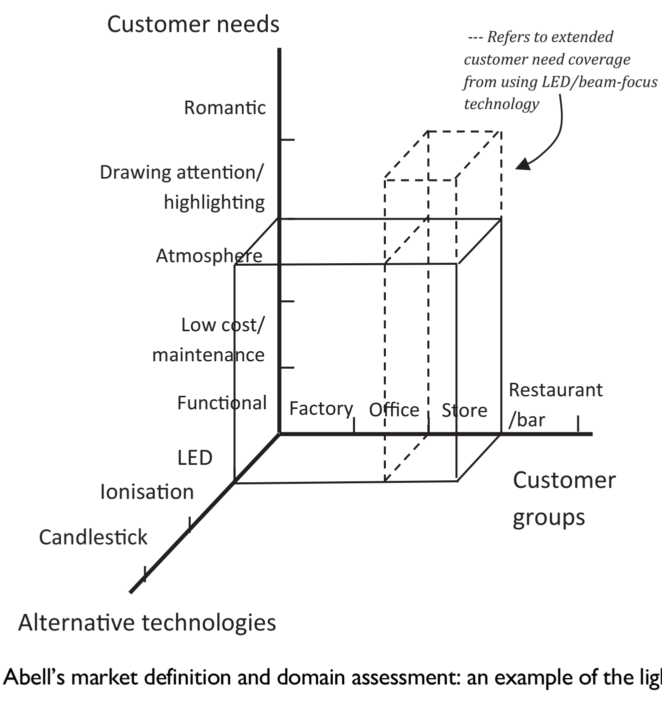


*Figure 3.1* Abell's market definition and domain assessment: an example of the lighting market

(i.e., applications of the technologies) that customer groups buy to satisfy their specific needs. A firm's position can now be indicated in the figure; it concerns those combinations of the three dimensions it uses and targets. This is the firm's *business domain* or scope of its activities.

Abell's framework offers the entrepreneur not only an understanding of the start-up's business domain but of the needs it tries to satisfy and for which (target) segment. At the same time, it offers a view of the competition it faces. The other technologies and their applications are potential substitutes, to the customer. Other firms applying the same technology are direct competitors, to the entrepreneur.

Because customer groups, needs and technologies vary over time. The model is *dynamic* rather than static. Change may occur along one, two or in fact all three dimensions. If an entrepreneur uses a new technology for its innovative application (for example, a new online store where you can self-design your own 3D-printed lamp/light fixture), the technology axis is extended. If its product application also cultivates a latent need, growth via the customer need axis will occur simultaneously (e.g., a desire to make your own lamp design).

For the entrepreneur the key question now is: Which (emerging) customer group is most likely to recognise the importance of the new technology, and consider my new product (application) and thus switch? The Abell model helps develop assumptions about the market and particularly customer groups. These can subsequently be tested by approaching customers of this segment for validation.

### Doing it right – Advice on using Abell's market concept

Applying Abell's model to define your firm's market requires some practice. To come up with useful categorisations that describe the market and help to understand competitive characteristics and market dynamics, you generally have to make several attempts. Take for instance the 'cure market' (i.e., hospitals). The technology dimension could be filled by accounting for different levels of sophistication of cure: academic/advanced, general, basic cures. An alternative approach would be: Western versus alternative medicine. Each division may be useful depending on your perspective and goal. While some people think it annoying that multiple pictures can be developed, it helps to explore opposing views and dynamics. Based on a comparison of alternative conceptualisations, a motivated choice can be made for a particular market definition.

A good starting point for developing the model is to begin with backward engineering; look at the market and fill in – based on products you see – the technologies, customer groups, and their needs. Next, experiment with changing or making variations based on this model.

## 3.2 Customer segmentation

The challenge of the entrepreneur is to identify the target customers for the new product application. Because the market generally is heterogeneous, the first challenge is to identify the segment with the best-matching latent needs and customer behaviours. Targeting this segment will increase the chance of success significantly. If these customers like the new product concept and are convinced of its superiority over alternatives in the marketplace a prototype can be developed.

So, after identifying the market and developing assumptions about the potential target segment (for e.g., our business model) *problem interviews* with customers from this segment should be conducted. These interviews should focus on the shortcomings of current alternatives and specifically the problems that customers experience. What is their problem level: must-solve, nice-to-have solved, don't-need-to-solve? How do customers rank their top three problems?[2] It is important to interview several customers from the segment to get a good perspective of these customers and their problems. It is important to make sure that the respondents you involve are representative of the segment.

This deconstruction of the market in more and less homogeneous customer groups or segments is a core marketing concept. It is called *market* or *customer segmentation*. Two main approaches for identifying customer segments can be distinguished: (1) *a priori*, or deductive, and (2) *post hoc*, or inductive, identification of customer segments. In the above discussion of the Abell concept of the market we clearly used the former.

In the *a priori* approach, the entrepreneur identifies the segments beforehand, based on prior knowledge. By simply looking at a market you may notice particular groups and thus potential segments of customers attracted to certain types of products (e.g., small and large painting firms with less and more professional purchasing behaviours respectively). The quality of such segments can be tested by checking (e.g., using the problem interviews) whether the customers of these segments react to product offers and related marketing efforts differently. The Lean Canvas approach uses this *a priori* approach, calling for a brainstorm of possible customers – "You most likely already have an inkling of the problem, solution, and customer in mind. Start by brainstorming the list of possible customers you envision using your product. …A customer is someone that pays for your product. …Split broad customer segments into smaller ones …[because] You can't effectively build, design, and position a product for everyone."[3]

In the *post hoc* approach, customer segments are derived using market research. Respondents are surveyed, using a carefully worded set of relevant questions and evaluating their product preferences. Statistical analysis, particularly hierarchical cluster analysis, is then used to identify groups or segments. First, you look for significant differences in product preference, as well as other factors such as quality, advice, personal contact, warranty or service contracts, to derive the segments. Then, you try to find characteristics to describe the customers of each segment (e.g., small versus large firms).

**Doing it right – Check your segmenting**

Important criteria for evaluating the quality of the derived segments include:

1. Size: the size of a segment is determined by the number of customers in the segment but also its spending and growth potential. A segment should be large enough to support your firm, or at least make a substantial contribution to its continuity, otherwise the segment has little value.
2. Buying power: the people or firms in a segment should be willing to buy but also able to afford your product or service. If they have buying power, they could be targeted and thus considered as a potential target segment. Lack of buying power makes a segment useless.
3. Identifiability: although conceptually one may be able to argue that a segment exists (e.g., based on product preference), it is important that the people or firms in this segment can be identified. It implies that the customers of the segment are homogeneous enough to be profiled.
4. Accessibility: one must be able to reach the customers from a segment. The more detailed information we have on customers' buying behaviour, the better we can implement marketing efforts for this segment. For instance, knowing which media prospective customers rely on is critical for reaching them.
5. Stability: the segment should be homogeneous but also sufficiently stable over time to justify your attention. When a segment is stable, a dedicated strategy can be developed that will pay off.

## 3.3 Understanding customer value for the initial target segment

Drawing on the seminal work of Clayton Christensen,[4] we can develop our ideas about the most likely target segment more. Christensen studied the downfall of market leaders such as Kodak, Digital, Polaroid, and Blockbuster. He noted that these firms had not responded to the new technology because it seemed to underperform for the dominant customers in the market that they were serving. Consistent with this he developed the idea that new technologies and their applications typically enter a market 'from below' – that is, underperforming on core dimensions of the existing and dominant technology in the marketplace at first. He used a simple figure to illustrate his idea (see Figure 3.2). On the Y-axis, the product performance of any technology is shown, while the X-axis represents a simple timeline. The bandwidth of required product performance is the area between the upper and lower boundaries. As the positive slopes of the market and technology lines imply, over time, market requirements increase and technology matures. As a result, acceptable product performance of the market increases over time. An existing (dominant) technology and a new emerging

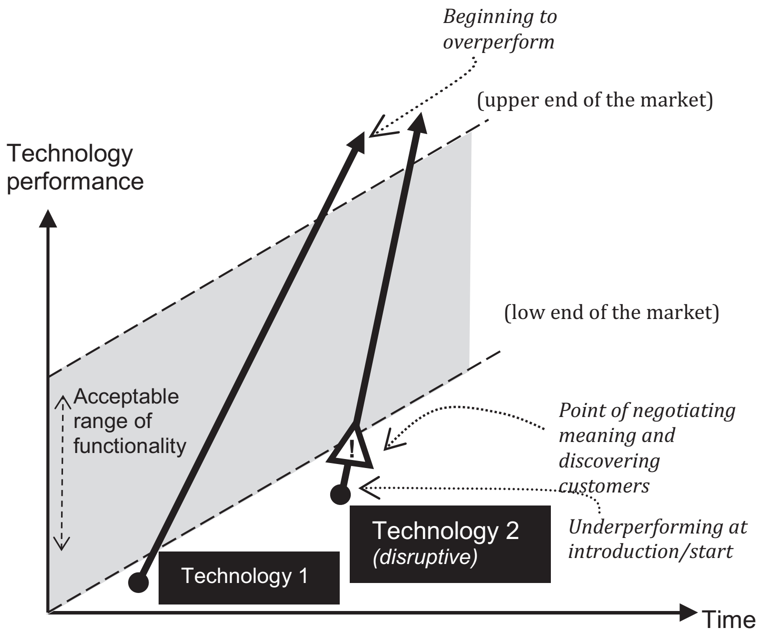


*Figure 3.2* Disruptive technologies and their performance effects (adapted from Christensen 1997)

technology (technologies 1 and 2, respectively) are also shown. While in the beginning, a technology cannot match the quality requirements of the market, at later stages, it does appear within the bandwidth of market requirements. Due to progress, a technology eventually will overshoot, that is, deliver more benefits than customers desire (e.g., your computer or engine is faster than you need).

Let us now look at the point on Figure 3.2 where the new technology's (technology 2) performance becomes acceptable for some customers in the marketplace. From seriously underperforming, it slowly but surely moves towards an acceptable level of performance (see ⊠). This acceptable level (of a particular application of the technology) generally concerns a specific customer group, that is, segment. Identifying this customer segment is key for the entrepreneurial marketer of a new technology and its application. It may in fact involve a new emerging segment, one that can only be found using creative segmentation strategies.

At the point where the new product application of the disruptive technology reaches the acceptable performance level, the entrepreneur and prospective customers will *negotiate the meaning* of the new product, including its product categorisation and customer value.[5] Particularly radical new products may not fit existing product categories and give way to the development of new ones (e.g., smart phones, smart watches, and alcohol-free beer). We will now reflect more on this customer segment adopting the new technology.

The customer segment interested in the new technology clearly likes the unique benefits of the new technology and its application, but does not mind its drawbacks, that is, the underperformance using the prior technology as the main standard. For these customers, the *trade-off* is positive, and they thus perceive the highest customer value for the new technology. These are the people who liked electrical cars for the new technology and to fight pollution from fossil fuels. They took for granted the fact that the first cars had very limited driving range. Similarly, these were the people who embraced Virtual Reality goggles despite their price and other draw backs.

The customers of this segment will evaluate the new application *relative to their current solution* [6] and then switch. If they are happy with their current alternative and feel the extra value from the new technology is too small, they will not change. If they can improve their situation substantially, they will switch. However, the level of behavioural change required to adopt will be a major factor that can seriously delay and thus slow down the adoption process.

## 3.4 Targeting using effectuation

We return to Abell's conceptualisation of the market and effectuation for targeting and positioning.

Abell's market and domain definition can be used to define the market and explore which customer segment is the best target. It offers a way to explore product–market fit by detailing the benefits for different customer segments and describing how well the new option caters to each segment. It thus helps to make *assumptions* about segments and their preference. In a second stage these need to be verified, that is, *tested*. This can be done using problem interviews with customers from this segment.

Figure 3.3 illustrates the use of Abell's market conceptualisation for an early provider of digital cameras. The first digital cameras had the benefit that users could see the image quickly and share it via the web or email with friends. Costs were relatively low as film did not need to be developed in a lab and users could immediately eliminate unwanted pictures. These advantages compensated for the initial low resolution of the pictures. It was simply fun using and sharing images. The consumer segment therefore immediately gravitated to the new technology, whereas professional and amateur photographers, for whom resolution was much more important, were not interested at first. Thus, it was quickly obvious that the early digital cameras were best targeted at consumers, and within this consumer segment to the technology enthusiasts (i.e., the innovators). These people liked the benefits and did not mind the fairly high price or low resolution of the first cameras.

As soon as the resolution problems were resolved, camera speed improved and manual settings became available, additional segments became interested and could be targeted effectively. Soon, sales soared and prices dropped,

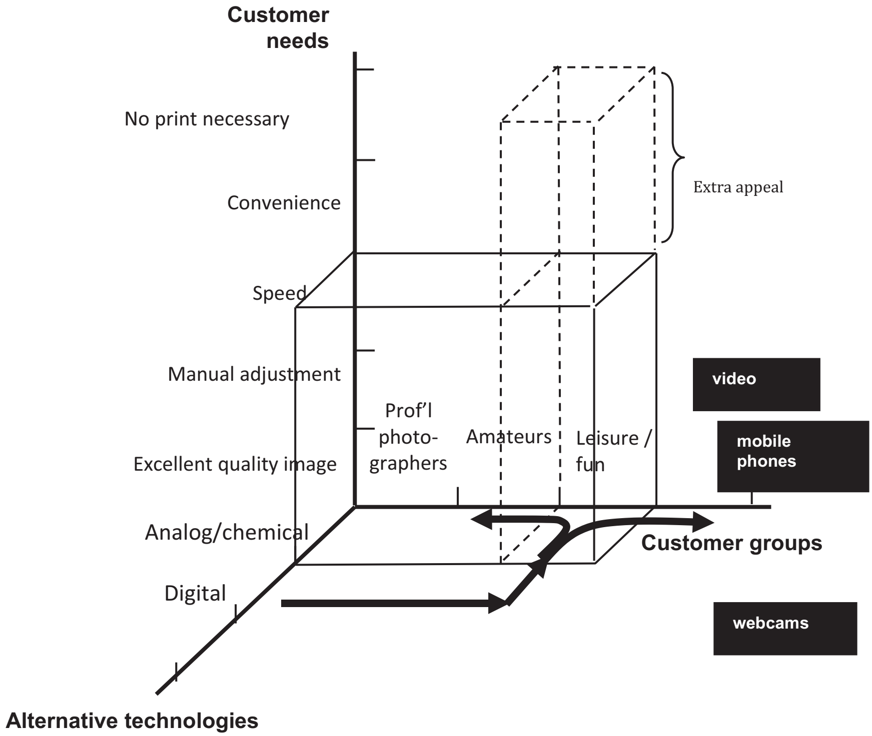


*Figure 3.3* Choice of target segment: how digital cameras penetrated the market

rapidly making the product attractive even for non-technological enthusiasts, that is, the average consumers in the marketplace. As the technology matured and progressed, even dominant customers of the old technology became interested. After a while, providers of the digital technology applications decided to introduce cameras on mobile phones and extend them with video functions. As a result, the boundaries between markets began to blur. The market for photo and video cameras in 2021 looks very different from 2000.

Another more recent example is electric cars. Due to problems with battery technology the first cars struggled with sufficient driving range. Their driving range was limited to 100–120 km, suggesting poor performance compared to existing technologies (for combustion and diesel engines driving ranges of 800 to 1200 km are standard). Refuelling was another issue. So, the first customers were environmentalists with limited requirements for travel distance such as households with a favourable disposition towards sustainability and using the vehicle as an extra car for shopping or to drive the kids to their sport trainings, and firms making deliveries in cities who had to comply with stricter local emission policies. As soon as the

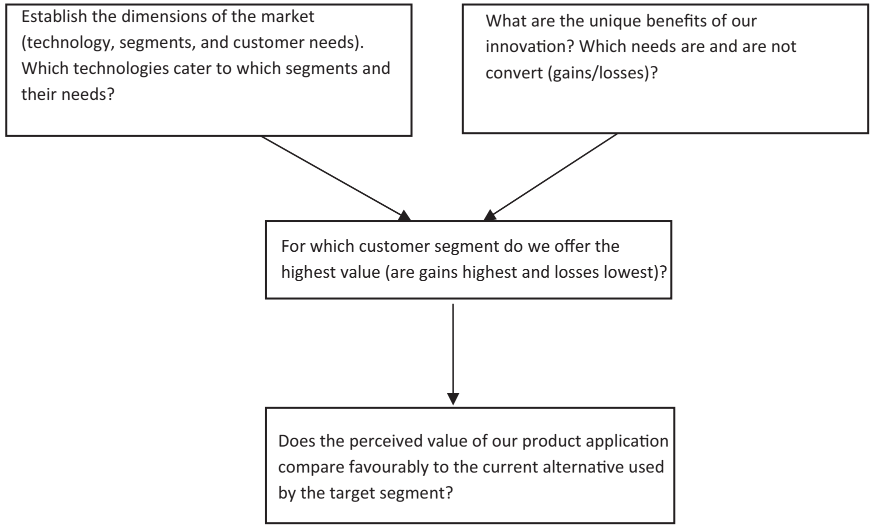


*Figure 3.4* Customer value determination and targeting process

technology evolved and driving range of the electric cars reached 250–350 km this problem decreased, raising interest of other segments too. However, it still was not an option for business people travelling 40,000 km or more per annum.

Based on these examples, we can now summarise how to discover the initial target segment for the selected new product application (see Figure 3.4). First, the general dimensions of the market should be determined; that is, which technological alternatives and products exist and which customer segments and needs can be identified. Second, the market view should be expanded with the new application. What are the unique attributes of the new product application (idea) and technology, and thus, what are the benefits offered? In addition, which value dimensions or benefits that customers are accustomed to are less well-covered and served by the new technology? Third, for which segment is the value of the application most important and favourable? In this final evaluation, both gains and losses that customers incur should be considered. Carefully making the trade-off analyses customers will make for themselves to determine their likelihood of adoption is key. Next, you should validate your assumptions by interviewing actual customers from the target segment about the problems they experience with their current solutions.

The exercise benefits from a dynamic view. Although the application's current value may not be sufficient, technological progress could bring it up to level and make customers consider it. Through iteration you can get a better focus on your market and niche.

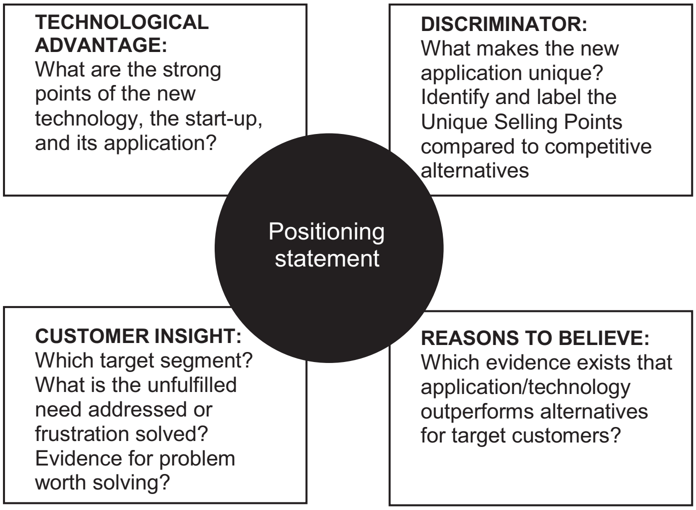


*Figure 3.5* Questions for developing a positioning statement

## 3.5 Developing a positioning statement

The next challenge is to think more about marketing your product. It requires identifying the new product application's value proposition and related *positioning statement*. A positioning statement should: (1) emphasise the unique features of the new product application and its technology compared with competitor products and substitutes, (2) draw on the entrepreneurial firm's unique competencies, and (3) use the perspective of the customer. Moreover, the statement should be simple and convincing. The aim is to position the product in such a way that customers of the target segment will recognise it, think its benefits compelling, and gravitate towards it.

First and foremost, the positioning statement should focus on a set of *unique selling points* (USPs). It concerns the one or two features of a product that stand out from the competition and convey its unique benefits to the consumer. The USPs' claims should be convincing and preferably not used in competitors' marketing. A mind-space occupied by the competition will only provide you a '*me-too*' position. Because start-ups often sell radical product applications that customers have never seen before, clear and easily understandable claims and positioning statements are vital.

It is of the utmost importance that the positioning statement explains the product's superiority using *a customer perspective*. For example, rather than selling 'a battery-powered power drill', we might conceptualise selling 'mobility to construction workers' to communicate our problem solution more effectively. Time spent on developing a positioning statement is time well spent. It complements initial targeting and will facilitate the development of strong sales arguments. The statement will help the sales team to communicate the product's unique value to prospects.

While positioning statements are short and catchy, they are not the same as slogans or brand mantras, which generally rely on only a few keywords. Whereas a positioning statement is mainly developed for internal use, slogans and brand mantras are typically aimed at external parties. Brand mantras are typically developed based on the positioning statement as part of a firm's communication strategy.

A useful tool for developing a value proposition and positioning statement is the framework of Figure 3.5. It offers a set of relevant questions that help you craft a solid statement.

**Doing it right – A positioning that customers remember**

Key to the exercise of positioning is that the entrepreneur chooses and develops a position that is available, credible, and important to prospective customers. Availability of the position is important. Occupied positions will prevent the entrepreneur from taking a top-of-mind position, as customers resist substitution. At best, one will be labelled as copycat and second-rate in customers' memory.[7]

However, an abandoned position may be considered and adopted. For example, after first-mover Atari decided it should transform into a fully-fledged computer manufacturer, the space of game computer specialist was available again. Newcomer Nintendo jumped in and became the next videogame console brand and familiar household name.

Figure 3.6 summarises the steps of the effectuation process of segmenting, targeting, and positioning. The framework can help an entrepreneurial firm discovering the initial product-market fit. As explained, the sequence begins on the left-hand side of the figure with the strengths and weaknesses of the radically new product application, and then looks for a suitable or best-fitting (emerging) target segment. It involves several iterations based on market information collected in this process. Finally, the target segment will be identified and selected, after which a positioning statement can be developed to address the customers of this particular segment. This also will take several iterations, as we will explain in more detail in the following section.

## 3.6 Validation: initial customer feedback

By no means is segmentation–targeting–positioning for radical new products a linear process. Beginning with the entrepreneur's new product and initial target customer segment, *validation* is needed.[8] This is a qualitative process and requires conducting problem interviews with a set of customers from the identified target segment to learn about these customers' problems and the

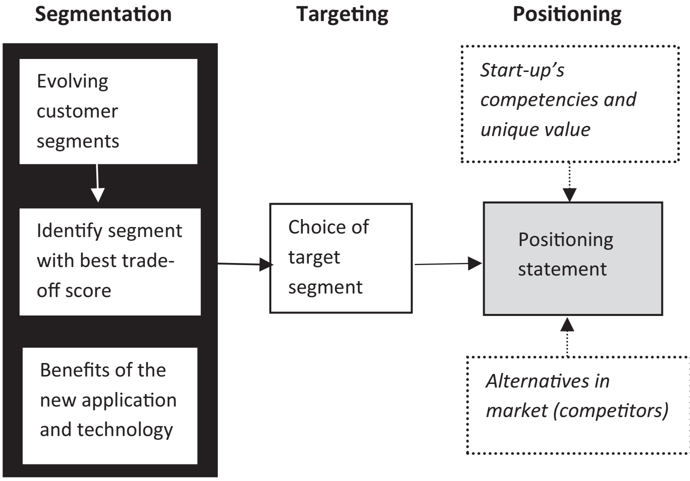


*Figure 3.6* Framework for segmenting, targeting, and positioning for the entrepreneurial firm

shortcomings of current solutions that they may be using. The objective is to observe and document how and why they experience these problems, but also to form an impression of what their latent needs are. It acts as a first validation of the (product-market fit) assumptions for your product idea. Multiple 'average customers' (representative) of the segment should be interviewed. How many people should be interviewed depends on circumstances. For instance, after 10+ interviews a picture may emerge as stories converge. Such saturation is a good indication that a fair conclusion is possible. However, since it concerns qualitative research it is important to not take everything at face value and be alert for hints that refer to small irritations or dissatisfactions. Be aware that people may not have thought about the issue you are exploring and the underlying problem. Follow-up questions to get to the core of things and understand their situation and views thus are critical.

If the entrepreneur's assumptions are contradicted and customers are not interested, then the exercise should be done over. If the response is as expected, then things can move forward. However, based on this customer feedback and insights the idea for the product application may be changed and/or improved. Before moving ahead then extra interviews will be needed to verify the assumptions related to these changes to the idea, that is, product concept.

Problem validation is not the only benefit the entrepreneur gets from gauging these potential customer responses. It also offers important information about alternatives and substitutes in the marketplace and their strengths and weaknesses from a customer vantage point. It offers a first benchmark of potential relative product advantage of the product application. However, more facts about competing products will need to be systematically collected to allow for an actual comparison and validation that your product would indeed address a *gap in the market*.

Based on positive results from the problem interviews, attention can shift towards detailing the concept and developing a prototype. A *prototype* is an early sample or model of a product or service built to test the idea or concept. It may refer to a mock-up or (partially) working sample. The prototype generally serves to evaluate a new product concept's feasibility (can it be made?), explore its design (what should/could it look like?), but also to get feedback from innovative users on its usefulness. The physical form of the prototype will make it easier for customers to understand and discuss the product or service concept. It can also service to identify areas of improvement of the basic concept.

Typically, the entrepreneur will work with prospective customer(s) to develop this prototype. Close interaction and co-development can help iron out problems and make improvements to ensure that the product or service will offer enough value compared to alternatives on the market, that is, be a superior solution, at least in some regards.

Through close customer interaction the entrepreneur will learn about the customer's perspective, needs and context of use, and be able to integrate this information to help ensure adequate levels of value-in-use for these customers. *Value-in-use* refers to the value that the customer will incur when using the product in a consumption setting or in business processes (in case of consumers and business customers, respectively). Identifying the requirements for proper implementation of the product and the behavioural change needed to enjoy the value are important to help ensure proper integration and use. Take for example smart doorbells and lamps. Without a stable Internet connection these products' response times are too slow and customer experience is poor. Similarly, ovens with pre-programmed cooking programmes may be wonderful for people who cannot cook, but can be a horror for home chefs used to and preferring manual settings, particularly if the pre-set programmes are rigid and limit usage, thus costing more rather less time.

Rapid prototyping acts as litmus test that the product is feasible; that the technology will not prove to be a bottleneck. It will also help the potential customers' assessment of the innovation's potential usefulness. Although maybe only showing basic functions and not really resembling the final product it will help customers grasp the idea better. It offers a further validation that customer demand and a business model may exist.

If feedback regarding the enhanced prototype is positive, attention may shift towards *further validation* with other customers from the target segment. This broadens the sample and hopefully helps reduce potential selection bias by enhancing generalisability of conclusions towards the target segment as a whole. This is important because customers are the ultimate arbiters of value![9]

Other biases of customer involvement by the entrepreneur have been identified and should be accounted for. Table 3.1 provides an overview of important biases to fight. Awareness of these potential biases can help an entrepreneur prevent or mitigate them.

*Table 3.1* Customer involvement biases and mitigation techniques

*York and Danes[10] focused on customer involvement in entrepreneurial processes and identified several biases and heuristics carrying the most risk for decreasing success. The first three relate to sampling while the last three are more personal characteristics or characteristics of the entrepreneurial team. The list of mitigating techniques was updated from the original suggestions.*

| *Biases* | *Mitigation techniques* |
|---|---|
| *Selection bias.* Most common bias. The data collected are biased by looking only to friends, colleagues, and known sources for testing hypotheses. Blank (2007) argues that 'getting out of the building' is a hedge against this bias, but many entrepreneurs still gravitate to confirmation-oriented sources. | *Look for contacts in your network who are relevant users of your product and do really experience the problem you are trying to solve. Pay careful attention to selection of interview targets.* |
| *Representativeness bias.* Focusing on small, non-random samples for matters of convenience and limited resources will limit generalizability of results. Particularly, to the extent that this bias interacts with the selection bias, validity of the customer information can be severely compromised. | *Be aware of the influence of limited sample size on generalizability. Vary innovative co-creating customers accordingly. Solicit feedback from more regular customers for calibration purposes.* |
| *Acquiescence bias.* Related to selection bias, this represents the tendency of respondents to give desired rather than truthful answers. It is often referred to in the startup world as 'not wanting to tell someone their baby is ugly'. | *Do not ask respondents to speculate on future behavior, but rather focus on past and current behavior, or actual (critical= very positive/negative) cases. Ask for critical/honest responses because of the value to you in the long run* |
| *Confirmation bias.* Bias resulting from the tendency to favor and interpret information in a way that confirms prior beliefs. People tend to search and listen for any evidence that 'confirms' existing belief and ignore all else. | *Maintaining open-ended interview discussion focused on problems, not proposed solution. Rely on actual measurement and data if possible/available. Use clear benchmarks to assess performance differences.* |
| *Overconfidence bias.* Overconfidence concerns the tendency of people to overestimate their knowledge, abilities and precision of information. Entrepreneurs believe in themselves is important, but overconfidence leads to the blocking out important feedback or alternative perspectives, it can be detrimental. | *Engaging mentors and advisors to provide an unbiased perspective on the information gathered and to create an environment of looking at potential causes of failure rather than assuming success.* |
| *Optimism bias.* Optimism is an essential characteristic of the entrepreneurial mindset and helps deal with setbacks. If, however, it leads to ignoring relevant evidence it will become counterproductive. | *Analogical reasoning – compare to other similar startups, and "consider the opposite" activities to force more critical thinking* |

(*Continued*)

*Table 3.1* (Cont.)

| |
|---|
| ***Other general bias mitigation options:*** |
| • locating in an environment with other start-ups and advisors (e.g., incubator) where external feedback is readily available<br>• undergoing training in customer development activities to strengthen information-gathering skills<br>• conducting all customer feedback activities as a team<br>• engaging a mentor or advisor to play the devil's advocate |

## 3.7 Different customer roles and co-creation

Customers are, arguably, the most important external partner for a small entrepreneurial firm developing a major innovation. Therefore, it is important to understand the total set of different roles customers can play in the start-up's new product development. Coviello and Joseph[11] studied customer involvement in young firms and identified ten roles customers can perform. We represent them in Table 3.2. The role varies from customer feedback on the start-up's initial idea, to co-developing the prototype, as discussed above, to helping promote the product in the marketplace.

Regarding development and testing the roles of technical adviser and co-developer are identified. However, also the roles of early buyer and co-financer of the R&D effort (development buyer) are mentioned. These roles are an extension of the early market validation, which we discussed above. In these roles, customers do not only invest time but also a significant amount of money in the new product. This makes it is an even better way of establishing customer support for the idea and thus confirming customer interest. It creates financial relief and can help convince other customers and investors also.

Additional customer roles relate to offering help marketing the new product. It ranges from offering feedback based on more extensive use, willingness to act as a reference customer, and acting as an advocate for the start-up and its new technology.

Interestingly, Coviello and Joseph's[12] results show that successful start-ups systematically involve customers *in all stages* of their product development, while unsuccessful counterparts do not. Unsuccessful firms only involve customers at the start and/or finish. It supports the importance of involving innovative and positively minded prospective customers early on, but particularly also during the rest of the development process and commercialisation stage. It suggests that constant and extensive customer involvement helps both early market validation of the new product and the search for a viable business model. It is also an excellent basis for a customer building strategy and can help optimise the repetitive sales model. It will also offer a basis for continuous improvement of the product and the firm's marketing.

*Table 3.2* Different customer roles in a start-up's development (based on Coviello and Joseph 2012)

| *Customer roles per NPD stage* | *Description* |
|---|---|
| **Opportunity review** | |
| Source of initial feedback | Start-up gets feedback from customer on product idea or concept; discusses product application and features and how these may help resolve current irritations/outperform current solutions. |
| Source of latent needs | Start-up identifies unarticulated or latent needs when observing or questioning customer. |
| **Customer-based funding** | |
| Development buyer | Start-up approaches and sells the concept as a development deal to specific lead customer(s) for R&D funding. |
| Early buyer | Start-up approaches customer for an early sale, thus providing a revenue base for R&D. |
| **Development and testing** | |
| Technical adviser | Start-up asks customer for technical input or specifications and technical guidance. |
| Co-developer | Customer engages in hands-on development and trials throughout development and testing. |
| **Commercialisation** | |
| Reference | Start-up asks lead customers to act as first reference and provide information on the product to other potential customers. |
| Promoter | Customer refers innovation to other potential customers and/or leverages network for sales development. |
| **Feedback** | |
| Sounding board | Firm asks customer for feedback on the concept, product or market. |
| User and critic | Customer offers extensive opinions, feedback or data on the concept, product or market. |

### Doing it right – Involving lead customers: how to identify them

For entrepreneurs involving innovative target customers in their product development is important. These customers' feedback offers a wealth of information. Many entrepreneurs think they first need a full-fledged prototype so customers can fully experience the benefits of their new product. However, reaching that stage generally involves serious investments of money and time, which both may be lost if the target customers then fail to see the merits of this new application. Therefore, it makes great sense to get quick feedback on the product concept instead. Based on the first-hand customers' critique, changes to the new product concept can be made, enhancing its value and preventing the entrepreneur from expensive mistakes.

However, an important question is how to find these innovative customers. As was mentioned, the entrepreneur should focus on prospects from the target segment or niche and explore his or her network to identify and approach them. Firms may look for venturous customers or even lead users. Lead users have a conscious awareness of their domain-specific needs, are motivated to innovate to satisfy those needs, and experience those needs earlier than others in the market. Sometimes they even have experimented with altering existing solutions to their needs.[13]

Recent research has focused on developing scales to help identify the 'right' customers to involve in new product development, that is, those with the unique capability to imagine or envision how concepts might be developed so that they will be successful in the marketplace.[14] An example may however better illustrate the challenge. Connectra, a start-up in bovine health monitoring, found out that farmers are open to innovation and are locally organised in small circles, where they discuss ideas and share experiences. In these circles there are more and less innovative farmers present, who have a big influence on the other farmers in the circle. They decided to involve these innovative farmers focusing on those with a positive attitude. They agreed that critique would be shared with the firm to help learn and improve the product/service rather than discuss it with outsiders. Because the firm aimed to launch its service all around the world and wanted to make it weather/season proof, it involved farmers from different countries and climates. It proved very helpful and successful.

## Summary

- Entrepreneurs should look carefully for the (emerging) customer segment that enjoys the benefits of their new product application most and is insensitive to the technology's early drawbacks.
- After identifying the potential target segment assumptions should be validated. This requires problem interviews with a set of customers of the segment. It also offers a view of strengths and weaknesses of alternatives in the market. Different iterations may be required.
- By developing a positioning statement, the fit between product application and target segment can be enhanced. This process requires identifying and building on the strengths (the USPs) of the start-up's technology and application.
- After validation of the target segment a prototype can be developed. This should be done together with one or more innovative customers.

## Notes

1 Abell (1980).
2 Maurya (2012), p.121.
3 Maurya (2012), p.39.
4 Christensen (1997).
5 Rindova and Petkova (2007); Rosa and Spanjol (2005).
6 Gourville (2006).
7 Ries and Trout (1980).
8 Blank (2007).
9 Priem (2007).
10 York and Danes (2014).
11 Coviello and Joseph (2012).
12 Coviello and Joseph (2012).
13 von Hippel (1986).
14 See for example, Hamdi-Kidar et al. (2019).

Chapter 4

# Adoption, diffusion, and understanding lead customers

**Key issues**

- Understand the technology adoption life cycle, customer adoption, and diffusion of innovations.
- Explain that more and less innovative customers exist in the target segment as well.
- Explain that for customers, adoption extends beyond the start-up's new product application to the technology and start-up organisation.
- Discuss the danger of chasms: discontinuities in the diffusion of a new technology.
- Examine deeper reasons why customers may postpone adoption of an innovation.

## 4.1 The technology adoption life cycle

Because an innovation's success or failure depends on the response of potential customers in the marketplace, we need to know more about adoption and diffusion of innovations. It will benefit our understanding of how to build a customer base for the start-up. We will begin by explaining adoption and diffusion theory.

Based on the observation that consumers and organisations have different propensities to adopt new products (services and ideas), Rogers[1] developed the technology adoption life cycle model and diffusion theory. Applied to marketing, this model postulates that if a market is confronted with the opportunity to switch to a new technology, prospective customers will have a different inclination to adopt based on their levels of risk aversion and openness to change. This *innovativeness propensity* is assumed to be normally distributed, like most social and psychological variables (e.g., weight, IQ). Although mainly oriented toward adoption processes of consumers, the theory has also been applied to business-to-business settings and their decision-making units.[2] A limitation is that the theory has been applied to the market at large, and not yet combined with the concept of market segments or niches. However, also within a segment more and less innovative people will exist. But more about this later.

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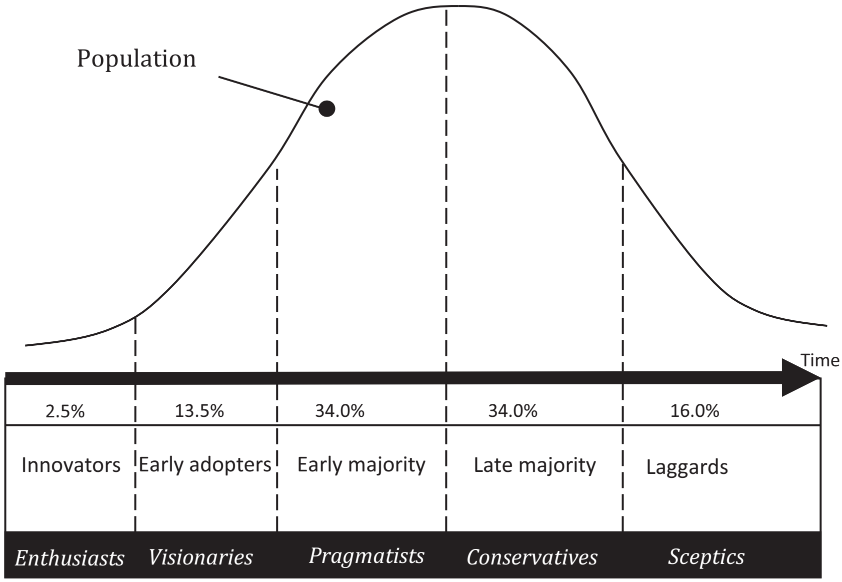


*Figure 4.1* Technology adoption life cycle (adapted from Rogers 2003; Moore 2006)

Normally distributed from more to less positively predisposed actors, the bell-shaped curve of the technology adoption life cycle model divides the whole market into five categories of potential customers. At one extreme, we find a small percentage of risk-immune *innovators* (see the left-hand side of Figure 4.1). Open to change and intrigued by the new technology and its opportunities, they want to be the first to try out the new technology and its product applications. At the other extreme, we find a small percentage of risk-averse *laggards* (see Figure 4.1, right-hand side). Hesitant to change and risk-averse, they avoid the adoption of an innovation as long as possible. In between are three additional groups – the *early adopters, early majority*, and the *late majority.* Most potential customers fall into these three groups. These people have an average risk propensity and thus, an average willingness to change. Based on their moment of adoption, they can be differentiated into early and late majority, with the early adopters at the forefront. The early adopters watch the innovators closely and will adopt if they think it makes sense to better accomplish their goals. This will send a positive signal to the early majority.

Consistent with the idea that innovators adopt first, an innovation will be adopted in sequence, from left to right.

The early adopters are important because they are the linking pin between innovators and the majority. Their move forward will increase the entrepreneur's chances of bridging with the majority of the market. Thus, the challenge for a start-up is to first obtain the venturesome innovators' interest, and then persuade the early adopters to follow. It requires accounting for differences between the groups by making some changes to the start-up's marketing over time.

In a homogeneous market, *diffusion* will go smoothly. Then, each group watches the previous group closely and is positively influenced by its decisions to adopt. For example, if large hospitals closely watch the innovation-oriented university hospitals, the latter's adoption of a new treatment may prompt the former to follow and thus adopt too. However, in heterogeneous markets serious differences between customer groups will exist. This may account for slow take-off and growth, or a deceleration in growth after a promising start. Only by using special marketing tactics, specifically aimed at persuading each subsequent group of customers, can the firm then increase the chance of successful diffusion of its innovation.

It is important to note that each group in the bell curve represents one, two or even three standard deviations from the mean. Consequently, the group structure is conceptually imposed; it does not refer to clusters of natural people. The groups are generalisations or stereotypes that marketeers use to segment the market. Whereas early and late majority customers are one standard deviation away, the early adopters and laggards are at two standard deviations. The innovator group is positioned at three standard deviations of the mean.

Empirical research supports the general notion of the technology life cycle and its usefulness in planning the adoption and diffusion of innovations. We briefly characterise the different groups of customers in more detail.[3]

*Innovators* (2.5 per cent of customers). Innovators are technology enthusiasts. They are thrilled to try any new product application. They are people who are fundamentally convinced and committed to new technological trends based on the assumption that, sooner or later, it will lead to improvement and new benefits. They take pleasure in learning about new technologies and mastering their intricacies. They embrace the risk and technical uncertainty involved, but are also forgiving regarding product flaws or reduced functionality of early versions of the new product. Consequently, they are always the first in the market buying the latest and greatest innovation.

From a marketing point of view, innovators are interesting because they are open to new products and willing to try them. A drawback may be that they lack money. Yet they will still influence others in the market and thus can be powerful promoters of your new product. Only with their endorsement can a radical innovation begin to resonate in the marketplace. Therefore, firms typically work closely with innovators to promote their new products and may even offer free samples to gain innovator support and their feedback (e.g., offering of a free Beta version in exchange for feedback in the case of software).

Innovators are also the ones who negotiate the meaning of a new product and its categorisation. As an entrepreneur, you should carefully monitor this process to ensure correct *categorisation* of the new product and to ensure that the correct product associations are developed. If the new product or service is completely new to the market it may give way to the development of a whole new product category (e.g., 0% alcohol beer, smart watches, and mobility services). Carefully and explicitly managing this process is important. It is a negotiation process between the entrepreneur and its innovators.

**Example – The importance of ensuring correct product categorisation by customers**

Dolphys Medical introduced Ventrain (see www.dolphys.com/ventrain/; accessed 16 December 2016), a new emergency ventilation device, which used a small rather than large tube. It resembled a system known as Jet ventilation. Similar to Jet ventilation, Ventrain was uniquely targeted to emergency situations remedying drawbacks of the established technology.

Aiming to further develop the new product and its market, Dolphys made modifications which made the product also suitable for regular, non-emergency ventilation in operating theatres. However, there was a problem. The close resemblance to Jet ventilation and the initial communication and positioning that had helped Dolphys's new technology to be accepted in the first place now hindered the extension to non-emergency situations. Immediate action was required to redirect people's perceptions of, and beliefs about, the firm's technology. Dolphys developed a new marketing, particularly communication, strategy.

*Early adopters* (the next 13.5 per cent of customers). Like innovators, early adopters buy into new product concepts very early in the life cycle. However, unlike innovators, they are not driven by their love for technology. They are visionary businesspeople, but they are also rationalists. Keeping a close watch on innovators, early adopters are the true revolutionaries in business and government who want to use the radically new innovation to create serious new competitive advantage. Their expectation is that by being among the first to exploit the new technology's application, they can maximise its benefits and achieve a serious advantage over their competition. For this purpose, they are willing to ignore well-established norms, break free from existing patterns and beliefs, and rely on their own intuition and judgement.[4]

This group has an extraordinary influence on the future of the new technology because this group is the first that brings real money to the table and provides stability for the entrepreneur's turnover. Yet, there is a drawback. Based on their personal judgement and vision, each early adopter may demand some form of customisation or modification. This may prove an impossible burden for the entrepreneur's resources.

**Example – Differences between early and late adopters of Total Quality Management (TQM)**

Westphal and colleagues[5] studied the differences between early and late adopters of TQM in hospitals and found that early adopters were indeed more rational while late adopters adopted because of social pressure. The early adopters were very knowledgeable and aimed for serious competitive advantages, using TQM to enhance their organisations' product and service quality. Their hospitals were successful. Late adopters, however, mimicked the success of the early adopters, but often without a clear understanding of what TQM entailed. Their objective was simply to copy the behaviour of excellent peers and thus to appear to be good managers. Consistent with this goal, the researchers found no effect of late adopters' adoption of TQM on their hospitals' performance.

This example illustrates the diffusion process. Innovators look for change and improvement. Early adopters act as close followers and make a careful economic value judgement. Late followers are best characterised as copycats. They give in to the new institutionalised social norm that has emerged.

*Early majority* (subsequent 34 per cent of customers). This group shares some of the early adopters' ability to relate to the new technology, but is even more pragmatic than the early adopters. Making up the bulk of all technology infrastructure purchases, these customers adopt because they recognise that the technology in question is being increasingly adopted by the market and is becoming the standard. Increasing sales and more sellers entering the market signal progress and make the decision to adopt the technology easier.

The early majority knows that many innovations fail or end up as passing fads, so they are content to wait and see how other people are making out before they buy. They believe in evolution, not revolution. Consequently, they look for well-established references before getting into the market and investing substantially. The early majority's influence on the institutionalisation of new social norms in the marketplace is high, higher than that of the early adopter group.

Because the early majority group makes up roughly one-third of the adoption life cycle, winning their business is key for any entrepreneur looking for substantial profits and growth. Having the right standard and features, plus an excellent price/quality ratio, are important to win this group over.

*Late majority* (next 34 per cent of customers). These customers are conservatives. They are pessimistic and uncomfortable about their likelihood to gain value from any investments in radical technology. As a result of their risk-averse attitude, they are typically price-sensitive and sceptical; consequently, they are hard to please. However, because they represent such a large group, courting this community with simpler, commoditised products or systems may still be highly profitable if costs are controlled carefully and decrease over time. Strong positive references and social norms play an important role in this prospective customer group's decision making, and thus, are important to watch and use in the start-up's marketing effort.

*Laggards* (final 16 per cent of customers). This final group involves people who have a negative attitude to new technology in general. They are sceptics. This community may be profitable for a manager who is milking declining products, but not for the entrepreneur and marketeer pushing for radical innovations. The method best suited to approach this group is beyond the scope of this book.

The basic idea of the technology life cycle model is that finally all customers in the marketplace will adopt a new technology and its application. This is, of course, not always the case. Some customers may not be attracted to a product, or prices may never fall enough to entice every customer to purchase and own the product. Still, this is a useful model of how prospective customer groups with different propensities adopt an innovation. It is a trustworthy guideline to help launch a new product, and to develop and grow a market successfully. It explains the speed of adoption and thus diffusion of an innovation in a market, but also why its sales may never take off.

## 4.2 Penetration and diffusion

The degree of a market's adoption of a new product at a given point in time is called *penetration level*. The spreading of a new technology and its application in a market is called *diffusion*. In Figure 4.2, rapid and moderate diffusion are shown, along with postponed and accelerated take-off. The task of

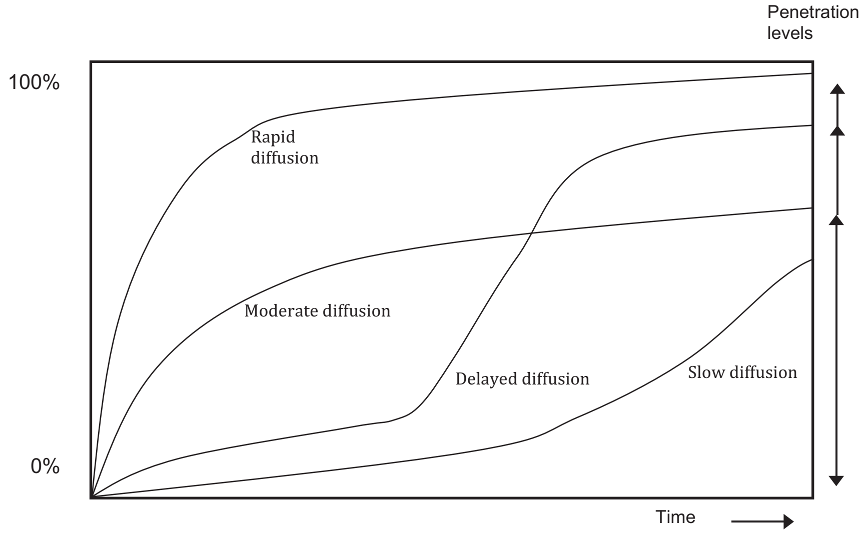


*Figure 4.2* Diffusion patterns (adapted from Moore 2006)

any entrepreneur is to avoid *chasms*, and thus to ensure consistent diffusion in the marketplace. Chasms are sudden decelerations in growth of sales of a new product. They may be caused by heterogeneity of demand (i.e., different customer groups available), but also by poor product performance or trailing firm reputation, which make subsequent customers reluctant.

Rapid diffusion suggests that the differences (e.g., needs and norms/values) between innovators and subsequent groups are small, and thus that the market is homogeneous. Moderate diffusion speed suggests moderate differences across the groups. Delayed take-off concerns a diffusion pattern characterised by a lingering curve that picks up in growth only after a certain period. If large differences exist between, for instance, the innovators and the rest of the market, the innovators will not be a good reference for the subsequent customer groups. Then, sales may only take off after the product has been changed to the needs of these other customer groups or when these groups have grown familiar with the innovation, recognising its customer value. Resistance, and thus delayed take off, may particularly occur if adoption requires significant behavioural change of customers.

Although it is true that innovation attitude is a general value and very much a personal trait, this does not mean that the bell-shaped curve and its groups are the same for all innovations, and thus, for each product application. Although young people are more likely to be innovators than elderly people, people may be innovators for one product but laggards for another and vice versa. Thus, it is important for every entrepreneur to identify the innovators for his or her new product. Innovators are the gatekeepers to any market take-off and need to be identified and addressed first. Furthermore, the similarity and differences between innovators and subsequent customer groups should be established to be able to anticipate chasms and find ways to prevent or alleviate them.

Returning to Abell's market conceptualisation, one should be aware that in a heterogeneous market different market segments exist, *each with its own innovators* and laggards. So, in the niche of customers with positive disposition towards the environment and not minding the limited driving range of the first electric cars more and less innovative customers should be anticipated. The innovators may show immediate interest while the other subgroups of the niche will be more rational and risk averse and thus adopt later. So, the start-up should focus on the innovators of this niche, that is, specific target segment.

With technological progress the performance of the application will increase and make it better cater to the needs of all prospective customers of the target segment, but also to other segments. It will again be the innovators of these segments who will be the first to show interest and decide to try and buy it. Currently, all brands are introducing their own electric vehicles under their own brand names and thus choice increases. Because technology (e.g., battery technology) has progressed the driving range has also been steadily rising making it a more viable alternative for people from segments that first dismissed the alternative on these grounds.

## 4.3 Understanding lead customers

As previously discussed, for an entrepreneur, cooperating with one or more venturesome innovators, also referred to as lead users or customers, represents an excellent opportunity for finding the right product configuration and to make an entry with the first niche, that is target segment. *Lead users* are *ahead* of the market trend and experience problems before other customers do. Moreover, they generally are willing to explore ways to develop a solution to a particular problem in cooperation with an entrepreneur or new venture. The advantage of such early customer involvement is clear: the firm generates potential customer interest before it invests too much time and effort in the product, and enjoys valuable feedback on the original idea and concept. It increases the chance that the product will really help solve an important customer problem, which will increase the chance of the product also resonating with other customers in the market.

It is important to select these innovative customers carefully. If they are not representative of the market, the product that will be developed may not resonate with other customers of the target segment and the market at large. So, spending enough time and energy addressing which innovative customers to include and use to co-create your innovation is key.

Together with the lead customer(s) the start-up can develop a prototype to identify the, so-called, *minimal viable product* (MVP). An MVP "is not synonymous with a half-baked … product" but has all the characteristics to address "the top one to three 'must-have' problems customers have identified as important to them and delivers enough value to justify charging"[6] and thus demand a fair price that covers both cost and a decent profit margin.

If the lead customers have been chosen well the impact on further market development and sales will be high. First then the MVP will resonate with the rest of the target segment. Second, these lead customers will be an important *reference* for the segment's subsequent customers. They will act as opinion leaders, which will stimulate the other customers' curiosity and interest. The power of the reference will depend on the status of these leading customers, their level of satisfaction with the new product, and the level to which they plan to build their future business on this technology. For example, if these leading customers include a Fortune 500 firm that has completely migrated to the new technology, it provides confidence to the subsequent buyers. As mentioned, preferably the leading customer(s) is (are) recognised as important to the market and its development and thus has some *opinion or thought leader* status and influence.

To find leading customers, entrepreneurs should look around and explore their network. Attending seminars and trade fairs where people present and discuss new technologies will be helpful. These events draw technologically interested parties, including lead customers. Further studying the market and understanding the role of influencers in customer buyer behaviour can help.

While Moore[7] describes the customer's adoption process in terms of psychological characteristics of *individuals* rather than firms, his theory or conceptualisation can be extended to *business customers* too. Using a micro-institutional lens, it can be transferred to the adoption and buying behaviour of organisations. Institutional theory stresses the role of social processes and norms to explain how and why firms innovate, but also why and how they begin to behave similarly over time, and thus, how firms in an industry become isomorphic. Institutions enable familiar and constrain new firm behaviour in an attempt to be efficient. However, differences between departments and disciplines cause variation in norms, which leaves room for change. Particularly, individuals' curiosity may give way to exploring new options for doing business and creating competitive advantage for a firm or organisation.

So, despite normative pressure for conformity inside an organisation, the adoption of a new practice, product or service occurs because different professional disciplines in a firm may respond differently to innovations, which may spark change. The process revolves around the identification of an opportunity and then exploiting micro-institutional freedom called '*affordance*'.[8] It involves building support for a new idea, practice or technology within the firm by a *change agent*, that is, someone in the organisation promoting change such as the adoption of a new technology or product, service or system.

In the case of high-tech innovations, the change agent or initiator will generally be *a technology enthusiast*. It will be, for instance, a new product developer (chemist, engineer, etc.), head of maintenance or a plant director who sees an opportunity for new competitive advantage. It rarely will be someone from purchasing; these people are involved in routine purchases. Actively searching for new ideas, the change agent will be part of, or be related to, expert communities where innovations are discussed, and new practices prevail. Receptiveness to an innovation may be higher when "there is a sudden increase in the technical requirements for an organisational function or the social fragmentation of the expert community at the national or international levels".[9] For example, a product developer at ASML, the world's largest chip machine manufacturer, read about a new surface treatment method invented by a small university spin-off. Excited about its potential, he introduced it in the design of ASML's next generation of chip machines. The product developer initiated the change and built support inside his organisation to adopt the new technology from the spin-off. At a later stage, the supply chain manager pointed out that the spin-off did not meet the strict criteria to be classified as a reliable supplier to the large multinational. Quickly, measures were implemented to enhance the spin-off's professional standards, and thus, reliability as a business partner. ASML thus acted as lead customer for this start-up.

An open-minded attitude towards lead customer involvement is an important differentiator between successful and unsuccessful radical new product development by young technology firms; it helps validate assumptions about quality of the assumed market opportunity and fitness for use of the innovation.[10] Early sales and co-development deals can seriously enhance entrepreneurial success. The higher up a change agent is positioned in his or her company's organisation, the higher the chance the person can muster support for getting involved with the start-up.

## 4.4 A detailed view of the adoption decision[11]

Figure 4.3 shows the innovator's decision process. On the left-hand side, it shows the sources of information an innovator will use to evaluate the radical innovation. The adoption decision is depicted on the right-hand side of the figure. In the middle, we see the change agent – a technology enthusiast at the end of the customer (organisation) – and the decision-making unit (DMU) that will ultimately make the choice to adopt.

In the absence of 'easy product data' the innovator will use all relevant information and signals possible. Three sources of information feature prominently: (1) opinions of leading experts in the field, (2) reference customers, and (3) characteristics of the start-up.[12] All these sources will affect the adoption decision outcome and thus should be monitored and, if possible, managed by the entrepreneur.

*Leading experts.* An important source of relevant information is leading experts, that is, thought or opinion leaders. Leading experts are individuals or organisations that are authorities in a certain area of technology. In the case of radical new technology, it refers to the scientific community. Leading

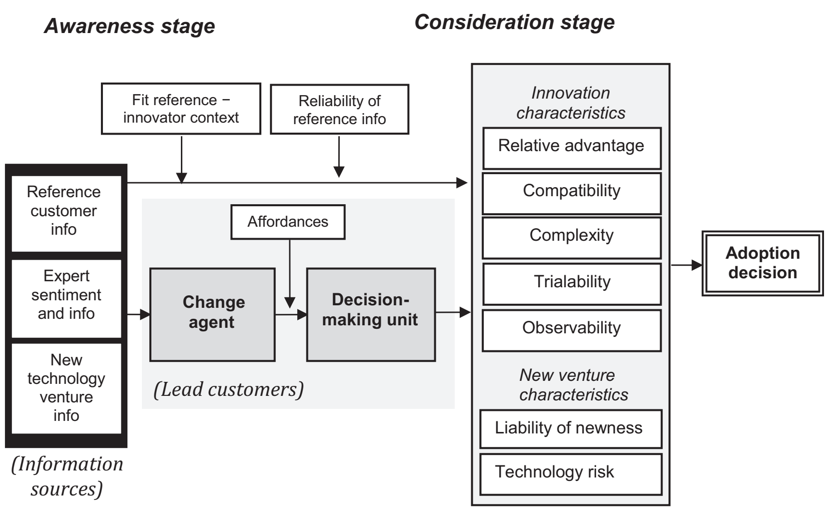


*Figure 4.3* Adoption process of the venturesome customer (adapted from Wouters and Nijssen 2012)

experts help to both conceptualise and increase awareness for a technology. At early stages of the evolution of the technology, leading experts' informational influence will exceed normative effect, for example, word of mouth.

A positive sentiment from leading experts regarding a new technology and its application will enhance the innovator's enthusiasm, which in turn will increase positive factors (e.g., relative advantage) and reduce negative factors (e.g., complexity, compatibility). So leading experts' positive sentiment towards the innovation and technology of the start-up will have a positive influence on the level of innovator enthusiasm.

Because innovators are open to change, and generally are actively trying to distinguish themselves from competitors in the marketplace, they will follow leading experts closely for their views and information. Nevertheless, they will make their own evaluation rather than looking to peers or being influenced by beliefs dominant in their own industry. Innovators have clear self-determination and are not followers.

*Reference customers.* Reference customers typically play an important role in business-to-business marketing. Salminen and Möller[13] propose that "firms operating in fields characterised by high technological uncertainty and investments, or trying to enter markets where they do not have established reputation, need to create references". The successful use of a radically new innovation by a reference customer is a showcase for other potential buyers and can dispel the uncertainty of the new idea; it demonstrates that the technology and product application are operational. The previously mentioned lead customers may be used as reference (as well as any other early buyer of the innovation). The impact of the reference depends on its size, image, and status, as well as on the level of commitment of these customers to the new technology (e.g., share of wallet). It will increase other innovators' confidence in, and excitement for, the new technology and product application. Reference customers positively affect the innovator's level of enthusiasm.

Apart from the indirect effect of a reference, a direct effect on an innovator's adoption behaviour is anticipated. Particularly if there is a close relationship between the use context of the reference customer and the innovator's own business context, such direct effect may occur. In the case of excellent fit, conclusions can be translated one-on-one to the innovator's own situation.[14]

The credibility and reliability of an information source also has an impact. Information that is considered reliable and credible will be weighed more heavily than less reliable information. An information source's credibility increases with its level of independence. Reliability increases with quality and detail of the information. Therefore, credibility and reliability of the reference are key. It may be enhanced by offering hard evidence on, for instance, cost reduction achieved by using the new product application.

### Example – Leveraging your first lead customer

The case of Sentron AG and Swiss Asulab SA, the research and development laboratory of the Swatch group, illustrates the important role of the first customer. Sentron was a small start-up that developed its first three-axis teslameter (an instrument for measuring magnetic fields) in cooperation with the Swiss Federal Institute for Technology Lausanne in 1997. It was based on a unique three-axial Hall magnetic sensor. At the same time, Asulab was looking for a good solution for a new high-end product for its Tissot brand, a watch with multiple outdoor functions including thermometer, altimeter, and compass (the T-touch model).[15]

Via their university network, Asulab learned about Sentron and its innovative technology. Sentron's new vertical Hall technology allowed, for the first time, integrating instruments for measuring two components of a magnetic field on one single chip. Moreover, Sentron devised this sensor for low power, small size, and high stability, which met, by chance, exactly Asulab's requirements. The fact that Sentron had sold some applications of its technology to some well-known scientific laboratories in the US helped persuade Asulab. To enhance trust, Sentron co-invested in making the necessary product changes. They reasoned that:

> [A] prestigious and visible application as a compass in a Swiss watch was much more important than an immediate profit. So, they offered the first adaptation of the existing chip for only CHF 10,000 and later the production of the test series of chips for another CHF 40,000. This just covered Sentron's costs.[16]

*Start-up itself.* Because start-ups lack a reputation, potential customers will look for other indicators of quality and success to make their assessment.[17] Sales growth and continuous support from, for instance, venture capitalists and customers provide confidence in the chances for survival. A contract with a third party to assure after-sales service for the start-up's products even if it disappears will also have a positive impact. It may fuel confidence in the start-up's technology and application, but also reduce concerns about its 'liability of newness', that is, concerns about its ability to survive.[18]

A positive evaluation of the information from the mentioned sources will fuel the change agent's enthusiasm and result in a positive initial evaluation of the start-up's new technology and product application. It will give way to the broader scrutiny of the start-up's product value and possibly even participating in co-creating a prototype or final product. These decisions will, however, be made by the DMU, consisting of all relevant actors of the innovator's organisation. The degree to which the excitement of the change agent spills over and results in actual adoption is influenced by the leverage (so-called 'micro-institutional freedom' or 'affordances') that the agent has with the different members of the DMU.

In the decision different innovation characteristics and dimensions of the start-up will be evaluated. It will include for instance divers of adoption that we know from Roger's adoption model: relative advantage, compatibility, complexity, trialability, and observability, as well as the uncertainty surrounding the start-up itself, that is, technology risk and liability of newness.

So, it is important to identify within any venturous customer organisation one or more change agents with cloud. They can help muster support for trail and adoption. In any organisation there will also be sceptics. They may actively resist the adoption of your innovation. In fact, they may even sabotage your selling of the new technology.[19] This is why it is important to know your customer and identify all stakeholders involved, and to develop sales arguments for each member of the DMU. All persons in the start-up who are in contact with the customer should aim to positively influence these actors and help build willingness for change. Information transfer and educating the customer are important instruments to use.

### *Alternative models of adoption*

Finally, we want to emphasise that alternative adoption models exist. Next to Roger's model with drivers such as relative advantage, complexity, complementarity, trialability, and uncertainty (which features on the right-hand side of Figure 4.3), there is for example the *technology adoption model* (TAM). TAM suggests that consumers may engage in cost-benefit assessments, and that such evaluations would determine whether an innovation will be used on an ongoing basis. TAM mainly focuses on two factors: the usefulness and ease of use of the innovation. Usefulness refers to the power of the new technology and its application to solve a problem or improve the way a user could complete a given task, whereas ease of use refers to behavioural costs, the need to obtain new knowledge and skills.[20]

## 4.5 Anticipating and preventing chasms

In some cases, the basic affinities of the market keep customer groups relatively close together. Then the diffusion of the innovation will go smoothly. Early adopters will keep a close watch on innovators, just like late majority conservatives look to pragmatic early majority customers for guidance. Under these conditions, it is sufficient to simply update the firm's marketing as the adoption cycle progresses to successfully concur with the market. If the close watch and identification is absent more work and change will be required.

While the bell-shaped model of the technology adoption life cycle suggests a smooth and continuous progression across customer groups, often the opposite is true. The transition between two adoption segments is generally incredibly difficult because of inherent differences between these groups. Because of the psychological differences between groups, an inherent *credibility gap* can exist.

It may result in a serious slowdown in sales growth and thus in the development of the start-up. Such gaps are referred to as *chasms*. Apart from the need to align their message and arguments to each customer group to persuade them, start-ups often need to modify their product and price to resolve the problem and get to the next stage.

An important reason for chasms may be selection bias of lead customers used for co-creation of the prototype and minimal viable product. If the customers selected to co-create the product were not representative of the market the result will be a product-customer fit but no product-market fit. Careful selection of co-creating customers thus is of the utmost importance.

The difficulty in predicting sales deceleration after steep initial growth is what makes chasms so dangerous. It explains why they may be hard to cross for any entrepreneur. We describe two potential chasms at the front end of the cycle in more detail (i.e., the early adopters and early majority chasms) to increase our understanding of and sensitivity to the issue (see Figure 4.4). We also offer advice on how to deal with these chasms.

*Early adopter chasm*. Many entrepreneurs are reluctant to commit to a particular market niche while their product is still under development. However, to begin making inroads and develop a relevant customer reference for new customers such marketing choices are often necessary. The more quickly the product's final configuration (minimal viable product) is identified, the more effective the reference will prove in attracting other innovators and the faster a transition from innovators to early adopters may occur. Including some early adopters, either as early co-developers or advisors next to lead customers, may make sense to help prevent this chasm. This advice is consistent with Hoffman, Kopalle, and Novak[21] who suggest cooperating with

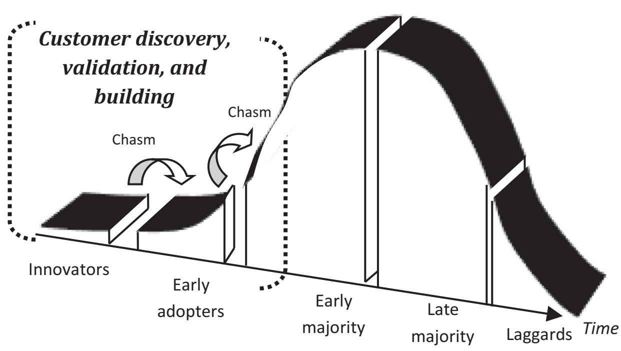


*Figure 4.4* Chasms in the diffusion curve due to psychological differences (adapted from Blank 2007; Moore 2006)

people with the unique capability to imagine or envision how concepts can be developed for the market as a whole, rather than relying on lead users. Characterised by creativity, optimism, reflection (introspection induced by curiosity), and openness to new experiences and ideas, these persons should have the ability "to process information, both logically and experientially, which allows them to envision the utility and usefulness of a product concept".[22]

*Early majority chasm*. The second chasm is the much-overlooked gap between the early adopters and the early majority. It is caused by the fundamental difference between these two groups. Like innovators, early adopters make their own decisions. They have a vision. While norms in the marketplace are still developing, they aim to be ahead of the majority of the market and score a technological competitive advantage for their organisation. Lack of a dominant standard may be an issue, but will not hold them back. The early majority, on the other hand, are pragmatists who only buy if the application can be readily integrated in their current processes. They generally use up substantial amounts of their budgets on consultants and other opinion leaders looking for advice. They also expect extensive references from firms in their own industry segment. Consequently, there is a serious difference or lack of fit between early adopters and the early majority, which is likely to create a widening chasm unless the entrepreneurial firm succeeds in customising its sales pitch to this pragmatic early majority.

For the early majority to be able to compare options, a product should have some competition. This suggests that alternatives should exist or be actively identified. An entrepreneur can facilitate this process by identifying substitutes and highlighting pros and cons for each product. Another aspect may be for the entrepreneur to take seriously the psychological and functional concerns of the prospective early majority customers. Studies regarding perceptions of sellers and buyers of complex new product-service systems suggest that oftentimes sellers underestimate the concerns buyers have.[23] Lack of responsiveness can turn these customers off.

In conclusion, the bell-shaped adoption model with its different categories of customer groups and their different demographic and motivational particularities can help us understand how a technology diffuses in the marketplace. Differences between adopter groups explain why diffusion may sometimes suddenly increase or decrease. Awareness of these potential chasms and the underlying mechanisms enables the entrepreneur to prepare in time and take suitable action.

Entrepreneurs should try to avoid these chasms by considering, at least to some extent, the needs of subsequent segments. More importantly, however, diffusion may benefit from technological progress. As technology evolves and matures, bottlenecks of the new technology may be resolved and application performance increased substantially, making it suddenly also acceptable for other than just the initial niche identified.

### Example – Effectively addressing chasms

The Dutch start-up Inmotio developed a system to monitor and optimise the efforts of sports teams (see YouTube: www.youtube.com/watch?v=dq1n7lYePJI; accessed 16 December 2016). The service is composed of a set of jackets with sensors for monitoring heartbeat, perspiration, and movement/direction, combined with analytic software to analyse the individual and team performances. The new firm first worked with the PSV Eindhoven (The Netherlands) and AC Milan (Italy) football teams. Inmotio had anticipated that, given football teams' large budgets, trainers would easily invest hundreds of thousands of euros in training equipment. But it soon became clear that investments in players drained team budgets and left little money for support materials. Another problem was the lack of support for science-based training methods in many clubs. Although the trainers of PSV and AC Milan were looking for science-based approaches, conservatism prevails with most football teams.

As soon as this became clear, Inmotio's entrepreneurial team considered other segments of the sports market. It decided to focus on speed skating. This sport and its trainers have been involved in scientific approaches to performance improvement for decades. The Dutch national speed skater team was enthusiastic and its endorsement helped Inmotio to enter several other sports markets.

## 4.6 Reasons why customers postpone or resist adoption

A final topic to discuss is the reasons for prospective customers, particularly innovators, to postpone, resist or even reject an innovation. Innovation adoption research has greatly enhanced our understanding of factors facilitating and inhibiting the adoption of innovations. It has stressed that relative advantage is a dominant driver of adoption. Nevertheless, many innovations still meet with lack of enthusiasm or resistance.[24]

Previously, we referred to customers' regular resistance to innovation. However, even more profound motivations for rejection may exist. In an in-depth study, Kleijnen and colleagues[25] identified these causes of resistance. Based on interviews with a set of innovative customers, they developed a hierarchical continuum, ranging from resistance, moving to postponement, via rejection to opposition (see Figure 4.5). Both the amount and type of change and risk involved were identified as drivers of the categorisation. Innovations changing existing patterns of use and involving economic risk are likely to lead to customers' *postponing* their adoption of the innovation (the weakest form of resistance). However, when also functional risk, social risk and/or poor image are involved, customers tend to move towards *rejecting* that innovation (e.g., early electric cars with very limited driving range, at least until the driving range became acceptable). Finally, innovations that conflict with existing traditions and norms are distinguished. Perceived risk of physical harm, for example, tends to raise active *opposition* and even rebellion. This

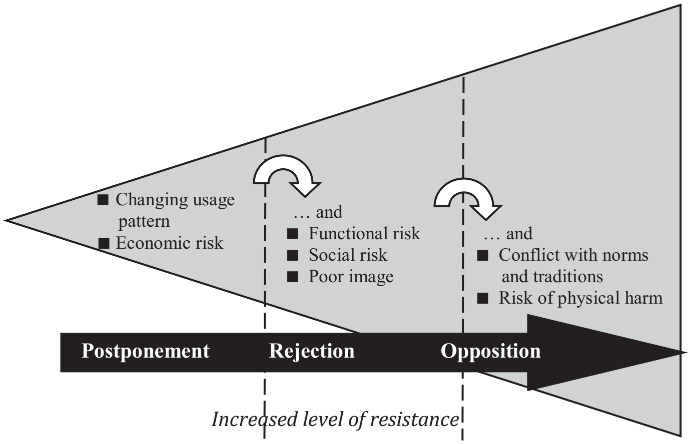


*Figure 4.5* Hierarchy of innovation rejection by innovators (adapted from Kleijnen et al. 2009)

strongest form of resistance we see, for example, in the case of genetically modified food. Some groups have given it the derogatory nickname of Frankenstein Food. Of course, such associations may be very damaging, particularly if they spread in the community and market.

The classification can be used to understand the level of intensity of resistance and take adequate measures, that is, develop strategies to alleviate concerns that prospective customers may have. Stakeholder analysis will be useful to understand sentiment in the market and society at large for the innovation and its technology.[26] It can lead to working with stakeholders to alleviate concerns for instance by knowledge transfer, responding to concerns, and possibly making small changes to designs.

**Summary**

- Entrepreneurs must look for the innovators in the marketplace as their target segment to make inroads. Innovators are the small percentage of people that are risk-oriented, interested in new technology, and less sensitive to initial product underperformance.
- Even in a target segment or niche, more and less innovative customers exist and should be taken into consideration.
- Carefully identifying and involving lead users or customers can make co-creation efforts more effective and thus enhance the entrepreneur's success. Ideally these lead customers are also opinion leaders or important influencers in the market.

- Understanding the role of change agents in customer organisations is important. They should be identified and convinced. This will require serious relational investment and communication.
- Chasms in market demand development should be anticipated. Careful selection of lead customers can help prevent chasms, while modification of the start-up's marketing and sales efforts can help deal with them.
- Resistance in the market against innovations is common. Reasons for postponement and opposition should be analysed and strategies developed to mitigate the negative sentiment and reactions. As part of this effort stakeholder analysis will be useful.

## Notes

1 Rogers (2003).
2 For example, Frambach et al. (1998).
3 Based on Moore (2006).
4 See Westphal et al. (1997); Guiltinan (1999).
5 Westphal et al. (1997).
6 Maurya, (2012). p. 59.
7 Moore (2006).
8 van Dijk et al. (2011).
9 Laurila and Lilja (2002), p. 576.
10 See Coviello and Joseph (2012); Popovic and Fahrni (2004).
11 This section draws on Wouters and Nijssen (2012).
12 See, for example, Popovic and Fahrni (2004); Ruokolainen and Igel (2004); Salminen and Möller (2006); DeKinder and Kohli (2008).
13 Salminen and Möller (2006), p. 3.
14 Simonin and Ruth (1998).
15 www.ablogtowatch.com/tissot-t-touch-expert-watch-review-the-king-of-quartz/ (accessed 16 December 2016).
16 Based on Popovic and Fahrni (2004), p. 931.
17 DeKinder and Kohli (2008).
18 Stinchcomb (1965).
19 Blank (2007).
20 Evanschitzky et al. (2015).
21 Hoffman et al. (2010).
22 Hamdi-Kidar et al. (2019), p. 619.
23 Paluch and Wunderlich (2016).
24 See Garcia and Atkin (2002); Molesworth and Suortti (2002).
25 Kleijnen et al. (2009).
26 Juntunen et al. (2019).

Chapter 5

# Important competitive and market considerations

**Key issues**

- Explain strategic market context in which start-ups operate.
- Explain different levels of competition.
- Discuss the 'beachhead strategy'.
- Define network products and explain their strategic consequences.
- Explore how to establish a competitive edge.

## 5.1 Strategic considerations

To better understand the success of entrepreneurs compared to incumbents it is important to examine competitive and strategic issues. For example:

- When are entrepreneurs more likely than incumbents to succeed?
- When is targeting a market segment, or so-called niche, smart?
- Under which conditions is it better to abandon the niche approach?
- Moreover, since a new technology's application may be considered an alternative and substitute to existing products on the market, how should one look at competition?

## 5.2 Different levels of competition

Gathering intelligence on competitors, their products, and technologies allows will help you identify a gap in the market. It can also serve to differentiate your product in a meaningful way, and thus build a better competitive position. Moreover, it can help anticipate competitor moves and reactions to your market entry. The latter is important as start-ups' limited financial resources are better spent on firm development and linking to customers than fighting the competition.

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Incorrectly, many entrepreneurs think that their products are unique and thus there is no competition. They are convinced that their product's new features make it superior. However, even though competing products may not look the same or function identically, customers may still consider them alternatives. By identifying and analysing alternatives and competitors carefully, the entrepreneur can determine why and when some customers prefer one alternative over the other. This analysis of competitive products enables better marketing decisions.

Whether customers think your new product is better than the existing ones on the market depends on their specific needs and how well each application is able to satisfy these needs. Often, there are multiple products in the marketplace at the same time. For instance, there are electrical and petrol hedge trimmers. By developing a detailed view of the evolving market and its products (based on different technologies), you can gain a good understanding of market dynamics. For example, consumers who infrequently trim small hedges close to their houses will prefer a light machine but not mind an electrical cord, whereas professional gardeners trimming many, large hedges probably prefer, and require, the mobility of a petrol trimmer. Based on market trends, and changes in market share between competitors, underlying competitive dynamics can be identified and understood, and new market opportunities identified.

Marketers distinguish between different levels of competition. First, they distinguish between need and product (including brand) competition (see Table 5.1). *Need competition* refers to the fact that sales of substitutes influence each other. *Substitutes* look and feel different but can satisfy the same customer need. An example is teleconferencing versus air travel. Both can facilitate exchange of business information or business meetings. For instance, as teleconferencing quality increased and became more widely available (e.g., via Skype conference calling), a serious effect on business travel was seen, particularly during the recession of 2007 and 2008. Of course, the Covid-19 pandemic of 2020 further accelerated this substitution, not only by business organisations but by the general public. Suddenly the trade-off of cost (including behavioural change) and benefits changed completely as air travel and presence in offices, family visits, and shopping were effectively ceased. Although a pandemic is an unforeseen factor that can totally change

*Table 5.1* Different levels of competition

| *Need competition* | *Product category* | *Brand competition* |
|---|---|---|
| Screw, staple | **Glue** | Henkel, Bison, Pattex, Rubson |
| Air travel, postal services, email | **Postal services** | TNT, UPS, FedEx |
| Personal communication | **Video conferencing** | Skype, Zoom, MS Teams |

a business environment, it provides many fascinating examples of how entrepreneurs quickly took advantage of market opportunities.

Similar products are interchangeable and therefore compete. This type of competition is referred to as *product competition*. One example is postal services. National postal services compete with express services. Brands operating with the same products in the same market segment also compete directly. This is named *brand competition*. Brand competition in the express market exists, for example, between DHL Express and services from TNT and UPS. In a similar way, KLM-Air France air travel competes with that of Emirates and British Airways, and Liebherr competes with Caterpillar cranes. In video conferencing we see brands such as Skype, Zoom, and MS Teams competing.

The more similar a solution, product or brand, the more aggressively sellers will compete. This can be explained by the simple fact that they attract the same customers. Brand competition concerns direct competition. Competition from substitutes concerns more indirect competition.

## 5.3 Change from inside or outside the industry

Tripsas[1] analysed the conditions determining whether newcomers such as entrepreneurs or incumbents (current providers) were the winners after a new technology was introduced in an industry. She found that in situations where the innovation caused a fundamental shift in business model, new entrants tended to do significantly better. However, when parts of the incumbent's original business model could be salvaged, the existing players stayed in power.

The transition, for example, from mechanical to electric typewriters still meant a need for a large repair service organisation, giving incumbents the upper hand. However, with the introduction of the personal computer, repair services became largely obsolete because the integrated circuit boards were no longer repaired but simply replaced. Similar examples are the success of Netflix versus incumbent Blockbuster. Entering using DVD shipment through postal services and a recommender system allowed Netflix competitive advantage over the 'bricks-and-mortar' based model of Blockbuster video stores. Netflix's streaming services meant further business model innovation, which was complemented and strengthened by successfully producing new content.

Christensen[2] also argued that radical change generally comes from outside rather than from inside an industry. Innovations generally come from entrepreneurs, rather than from incumbents (e.g., Amazon versus the traditional publishers and bookshops) because they draw on new technology that caters to *new* rather than existing customers. From the incumbent's perspective the new technology underperforms; it does not fit their *current* customers' needs. Engrained beliefs, routines, and dependence of current sales volume do the rest. Engrained beliefs and routines may help managers to make decisions efficiently but also limit them in responding to new trends. It encourages inertia.

A firm's dependence on a certain group of customers makes it less responsive to new technologies. Customer dependence and prior success positively bias a firm towards existing rather than new technology. Referring to old successes, members of the old technology inside the firm will not just resist change but fight back. It will paralyse the organisation and make it unable to change.

In conclusion, to understand whether your new innovation has a good chance of changing the target industry and winning market share, analyse the drivers of the incumbents' and your and their business models.

## 5.4 Anticipating competitor reactions and avoiding head-on competition

It is important to identify the rivals whose business would lose the most to you. The rivals who are affected most are considered *close competitors*, while those less affected are best thought of as *distant competitors*. Close competitors generally use the same strategy (that is, they address the same customer segments with the same type of value proposition), and they share the same goals and approaches.

Although these competitors may tolerate your market entry, they will probably react, for instance, with simple price discounts and promotions. The severity of the response will depend on whether they perceive the start-up's entry as an attack on their core business or not. However, as we saw above, perceptions play an important role. For example, large camera makers like Nikon, Canon, and Sony did not consider GoPro's action camera (or in fact cameras placed on cell phones) a threat to the camera market. They simply ignored it till the point where it became clear it did have an impact and should receive attention. Managers then should hope it is not too late to enter and build market share.

However, firms that do think they are attacked in their core business will fight back. They will consider their very existence being challenged. Therefore, they may react with emotion and seemingly irrationally. To avoid this, a start-up should carefully study the competition it is up against, their competitive relations and historical responses. Each individual competitor and response style should be researched and evaluated before moving in. It is particularly dangerous to ignore simple and most obvious responses, such as temporary steep price reductions or negative rumours about the new product. Even though the rumours may be false, customers could think "where there's smoke, there's fire". So, never underestimate the effectiveness of such a campaign. Furthermore, customers may trust their familiar business partner and its mature technology rather than the 'outsider' with its new, unproven technology. If the negative campaign lasts and prevents customers from switching, the start-up's chances of success may decrease rapidly as cash flow lags behind.

Developing scenarios regarding possible responses by the competition and how to respond will help to prepare, increasing the start-up's chance of survival.

To be able to deal with price decreases make sure there is enough margin available and preferably stay out of the way of strong competitors by carefully positioning and communicating your value. Differentiation and premium pricing can prevent being considered a serious threat, at least in the short run.

**Doing it right – Can you answer these questions about your rivals?[3]**

1. To what extent is each competitor satisfied with their current market position? In cases where the competitor is less satisfied with their present position, it is likely that they will follow up on market developments quickly and will try to profit from opportunities that arise in the market. You should anticipate these moves.
2. Which possible courses of action are open to the competitor? A competitor's capability profile and resources will determine to what extent strategic options are open to a firm. Based on each competitor's strengths, some future courses of action may be plotted. If options are slim, one should expect fierce competition if a new firm enters the market.
3. Where is the competitor vulnerable? Given that a competitor cannot be strong on all items, identify weak spots that may serve as targets for competitive, strategic actions. Your new technology and application may be one, but attacking the customer segment most dissatisfied with the competitor's performance could be another.
4. How can competitive retaliations be reduced? Some segments may have lower chances than others for retaliation. For instance, firms typically see actions regarding their main market as a direct attack. Reactions may be lower in areas where the competitor's product value has already decreased or has a less dominant position.

Another effective way to avoid competitive reaction is to first aim for a niche. A *niche* is a segment of the market that requires special skills and attention to sell to it successfully. Such an initial niche strategy is sometimes called a *beachhead approach*. It refers to military strategy of landing, for example, allied soldiers on Omaha beach in Normandy during World War II to focus on securing a key battle position from which the invasion then could be further shaped.

As military theory[4] suggests, conquering a niche requires fewer resources than conquering an entire market. A niche strategy relies on the principle of concentration of means and is particularly useful for small firms, including start-ups. It will help achieve the necessary critical mass to succeed.[5] By pulling resources and spending them on a particular segment, synergy can be created that can help ensure meeting a threshold to beat the competition and make inroads. Of course, it makes most sense to focus efforts and resources on a niche where the entrepreneur's capabilities (technology and application) are most appreciated. Examples of niche markets are the segment of environmentally aware consumers targeted by Tesla Motors for its electric car, and the outdoor sports fanatics targeted by GoPro for its action camera.

Simultaneously attacking several segments means spreading resources (including management attention) thinly. More importantly, attacking several segments at the same time implies opening up several fronts and taking on a larger number of competitors at once. This may make the resource situation precarious and thus is better avoided. A single niche strategy is the entrepreneur's best option.

The aim for the entrepreneurial firm should be to become a market leader in this niche. A good niche is surrounded by *barriers* which make it difficult for a mainstream competitor to enter it efficiently and effectively without major efforts. For example, the luxury sports car segment is such a niche. It is difficult for regular manufacturers to make credible inroads and is thus dominated by speciality firms such as Porsche and Ferrari. Similarly, some firms have specialised in extreme cooling systems, or very large offshore construction projects that regular builders cannot address and thus avoid. Building on its battery technology Tesla made it hard for regular car makers to follow them quickly in the niche they carved out.

A niche strategy is particularly appropriate when the new market is expected to grow quickly and when there are several related market segments to target with the same application. The first offers the entrepreneur the chance to extend rapidly. It may benefit from the fact that the start-up's new technology can mature fast and becomes more competitive. The second offers good options to exploit other, related product applications. Building a reputation in the niche offers the opportunity to leverage the early success effectively.

## 5.5 Network products and their impact on marketing decisions

Network products are the big exception to the rule that a niche approach is the entrepreneur's best option for success. *Network products* are products whose customer value increases as more users adopt the product, or by the presence of complementary products.[6] The customer value of a network product is determined both by the product *and* the degree of acceptance in the market. It concerns two intertwined dimensions. First, the product's intrinsic value, which refers to what the product with its particular features can do. Second, the product's external value, which is the number of users and complementary products necessary to unleash the product's value and enhance it. Consequently, for network products customers' expectations about the future installed base and the resulting benefits of the network effect play a critical role. Particularly for radical innovations that change an industry's technical standards this is important. When incompatible with previous standards, the start-up's aim should be to become the industry's new standard. It requires making small inroads at first but quickly targeting the whole market to expand the number of users and thus increase customer value.

Network effects emanate from three sources:

1 *Direct effects*. Direct effects occur when the value of a product to any user is a direct function of the network's size or installed base. Examples are online chat programs and videoconferencing. These products can only be utilised if other users are available.
2 *Indirect effects*. This refers to the positive influence of complementary products to the value of a product. It occurs when the introduction of complementary goods increases in quantity and decreases in price as consumption of the primary product increases. Indirect network effects increase with the number of adopters because of increased attractiveness to develop and sell complementary applications or 'apps' for the primary good. An example is e-books for e-readers, but also charging stations for electric vehicles.
3 *The standardisation issue*. Standardisation feeds the reinforcing cycle between primary and ancillary products, based on the fact that standards make for compatibility. A standard with a large installed base will attract more complementary products and help persuade customers that they will not become locked into a poorly supported design. An example is the iPhone and its operating system versus the Android format. The question was whether Android could attract a similar stream of apps and become a major standard. By teaming up with, for example, Samsung the platform succeeded. However, late entrant Microsoft with its operating platform Windows Phone missed the market. Today we see many platform apps compete for market dominance (e.g., Uber and HelloFresh).

The three identified sources of network effects generally are related. Figure 5.1 shows the reinforcing mechanism between the direct and indirect network effects. If indirect network effects exist and a product is launched, it is necessary to address the availability and growth of complementary products to help it succeed. If direct network effects exist, substantial efforts toward *quick* and adequate adoption to build a large customer base will be necessary to unleash the new product's true value and grow a sustainable market position. In this case, a niche strategy will not work and should be avoided. Instead, a rapid market penetration should be used to increase the chance of becoming the dominant standard. Customers will recognise the development of a dominant platform and reinforce the trend by gravitating to the emerging standard.

So, if an entrepreneur is launching a network product, the objective should be to become the *dominant standard* as soon as possible. Involving official agencies that decide on new standards (and certification) may prove crucial; it can help get your standard accepted and will accelerate it becoming the new norm.

Figure 5.2 shows a strategic framework for entrepreneurs who sell network products. It shows relevant antecedents and consequences that should be accounted for. Penetration pricing and bundling, that is, selling an attractive

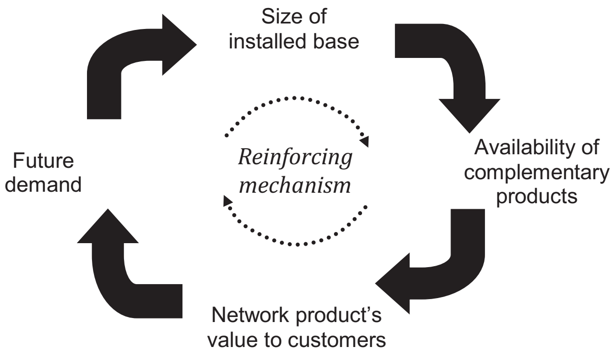


*Figure 5.1* Reinforcing mechanism between direct and indirect network effects (adapted from Lee and O'Connor 2003)

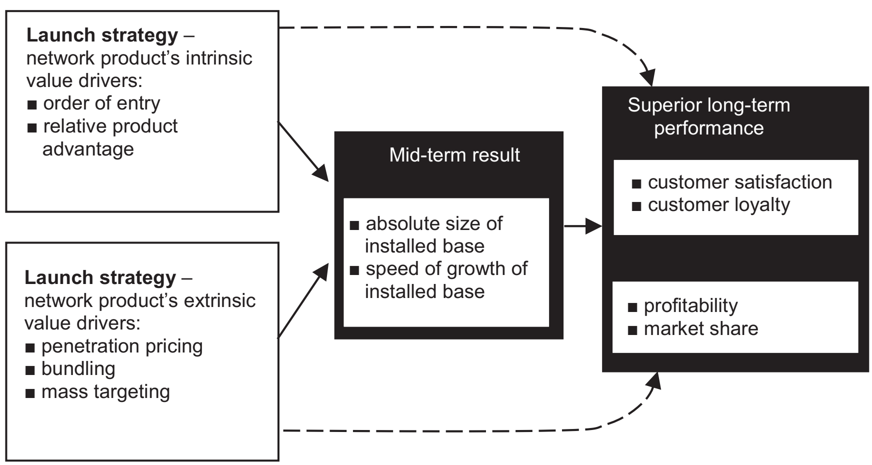


*Figure 5.2* Framework linking launch strategy and performance for network products (adapted from Lee and O'Connor 2003)

product package that is favourably priced, can stimulate adoption. It should be tied to a *mass market strategy*. Pre-announcement may be used to alert customers to a new network product and innovative standard that will be introduced. These strategic elements complement basic strategic logic: the product will need an adequate level of competitive advantage and early entry will give the firm an edge in building its market share and installed base. By being first, the firm's chance increases to beat the competition and get its standard accepted.

The objective of long-term profitability and customer satisfaction are dependent on (and thus mediated by) the speed of development and size of the installed base. Different degrees of network products exist. If a product is completely dependent on 'the network', mediation will be higher than for products that also have a certain level of intrinsic value, that is, value 'outside the network'.

**Example – Failing to become the new standard will hamper start-up existence**

Philips 3D Solutions, an entrepreneurial spin-off from Philips Electronics, faced the situation of a new technology standard and the challenge of dominating the future market of 3D television. 3D Solutions held a patent for 3D imaging and used a 2D-plus-Depth digital format that was an official MPEG 3D video standard. The end-user product was an LCD television with integrated, transparent vertical blinds placed direct in front of the TV screen. These blinds created a different viewing experience for the left and right eye (from distance of 10 feet). Due to this invention, the viewer no longer needed the red and green 3D glasses required by early 3D televisions to create the illusion of depth. By simply pressing a button, viewers could eliminate the vertical blinds' effect and return to 2D television images.

After first pursuing the game market and selling a number of products as gimmicks to museums and casinos, the new venture was terminated. It failed to win over enough parties to adopt its standard and thus failed to build a viable installed base. It never made serious inroads because it failed to persuade film studios and other market segments to adopt the new technology. Possibly the fact that the venture employed only one new business developer, compared with some 20 to 30 engineers, explains the lack of customer development.

## 5.6 Establishing your competitive edge

Now let us return to competitive considerations. It is necessary to validate two things: first that your new product or service outperforms the direct competition. That is, it should be better than alternatives on the market, and be so much better that customers of the target segment will switch from whatever they are currently using. This can be established using *solution interviews* with customers from the target segment. It can be based on the concept or prototype that you developed, and later repeated for the first version of your product (service).

Customers should clearly see the added value over the other existing alternatives. This means your product should be substantially better than what is currently out there. If the value is obvious, customers will show a positive attitude and clear willingness to buy, and even pay a price premium. The feedback can also be used to enhance the positioning statement for your new product. Developing a strong value proposition can help customers perceive the unique selling points of your new product more easily.

The second level for which information should be collected is direct competitors' positions and capabilities. It should enable you to access the sustainability of your new business, that is, the degree to which you will be able to defend it against competitors and other potential entrants. If you understand these firms' capabilities and business models you will also understand how easy or difficult it is for each competitor to defend the target segment or attack after you have launched successfully. If the target segment is a true niche it will be hard for a non-specialist firm to respond well and quickly against you as new entrant.

These important analyses depend on accurate market and competitive information, gathered from industry experts and secondary data sources. The better the analyses, the more likely you will make the right decisions and not be taken by surprise.

**Summary**

- Need competition, not only direct competitors, should be accounted for.
- A niche or beachhead approach can help avoid or reduce competitive reactions that can ruin you.
- Network products' customer value increases with more customers adopting them: the network effect. These products require a penetration strategy aimed at becoming the dominant standard in the marketplace.
- To validate the value of your new product, solution interviews should be conducted. Customers of the target segment should agree that the new product clearly outperforms alternatives on the market, and display willingness to pay (a premium).

## Notes

1 Tripsas (1997).
2 Christensen (1997).
3 Hooley et al. (1998).
4 Kotler and Keller (2006).
5 Ansoff (1984).
6 Lee and O'Connor (2003).

Chapter 6

# Market research in entrepreneurial context

**Key issues**

- Explain importance of market research to help underpin decisions with facts.
- Define primary and secondary data.
- Discuss qualitative versus quantitative research.
- Explain how to organise market research and analyse data.

## 6.1 Reasons for market research

Market research concerns the collection, analysis, and interpretation of data about the marketplace and industry at large to derive information about its size, nature, and development.

It fosters market and industry knowledge that can help make business decisions by reducing uncertainty and therefore *risk*. However, eliminating all risk is impossible for two reasons. First, it is impossible to account for all factors that may affect the outcome – there are always 'unknown unknowns'. Second, market research requires time and is costly, resulting in a diminishing rate of return. The optimum level of market research depends on the risk perception and attitude of the entrepreneur. Generally, the objective is to reduce decision uncertainty and make a conscious decision, with a calculated risk.

For the entrepreneur market research will particularly play a role in validation of the product (service) concept, and to provide knowledge to help refine the original idea. The entrepreneur can use it to discover and evaluate the potential of the target segment but also to best position the new product compared to alternatives in the marketplace. Although budgets may be limited, money spent on market research is money well spent because it will prevent obvious mistakes. Although market research can be expensive, even with a small budget valuable insights can be obtained from, for instance, the Internet, customers, and experts.

Market research is, however, much easier for ongoing businesses than for start-ups with radically new products. Radically new products may change product

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categories – and in fact whole industries. Consequently, current market data may be obsolete. This explains why some researchers and practitioners have criticised the use of traditional market research for entrepreneurial decisions and innovation.[1] However, market and industry information are still required to understand the current situation and thus context of the entrepreneur's market opportunity. Seeing the current market clearly helps the entrepreneur to assess the impact of the new technology and innovation, and to predict the new market reality more realistically. Although true innovative technology leads to a "fundamental re-conceptualisation of what the business is all about that leads to a dramatically different way of playing the game in an existing business",[2] it is important to be able to develop a business model and plan (e.g., for obtaining funding). Market data and arguments will help understand potential market size and how things may change. It can substantiate with facts the entrepreneur's business model narrative. People arguing that collecting feedback from customers on problems and prototypes is no market research should think twice.

## 6.2 What kind of data is needed?

Developing a new business requires understanding the industry and market one operates in as well as the behaviour of market parties and other stakeholders. Detailed insight in broader contextual factors such as social, economic, legal, ethical, political, and other trends may be important too. For instance, many app producers and smart product sellers run into legal issues when placing cookies on user devices to get access to their data to analyse use patterns and optimise their offer. Laws about data ownership and privacy can change under influence of political pressure. A systematic review of these factors' impact on the entrepreneur's business thus is required since it can affect outcomes. However, for matters of conciseness we will focus here on key constructs of industry and market rather than trend (and macro factor) analysis. Still, a careful stakeholder analysis will be useful.

*An industry* is a set of firms focusing on the same set of activities and drawing on the same suppliers, distribution channels, and customers. *The market* concerns the place where customers and providers meet. Providers offering the same product are *competitors*, and so are suppliers of substitute products. Knowledge about competitor products and behaviour is needed to position your product. New product propositions and positionings are easier to develop than those occupied by strong competitors.

Insight into *customer behaviour* is required too: how customers choose, buy, use, and dispose of products. Without this kind of information, it is impossible to really understand how the customer thinks, and whether your product represents a solution to a particular customer problem. Insight into distribution channels that parties currently use to connect supply and demand is also important. Partners may be strongly dependent on each other (e.g., have shared interests), which can be an obstacle in the way of accepting your new product. While an enthusiastic entrepreneur may only see a bright future and strong competitive advantage, an unavoidable industry middleman may not want to abandon existing industry relationships.

Market research generates data on these topics that is necessary to assess market potential and product–market fit.

## 6.3 Primary versus secondary data

Two types of data collection can be distinguished: *primary* and *secondary*. We will start with secondary data, as this is always readily available. Secondary data collection is gathering data that was collected by other people for other purposes. Since it was not gathered for you and your questions, it may or may not fit your needs. For instance, if you have invented a new respiratory system that will be used in hospital operating theatres, you may find it useful to see that public sources show how many hospitals there are, how many operating theatres they have, and the number of operations with and without respiratory support they perform. Sales figures of respiratory systems to hospitals would also be of interest. This data will provide a description of the market and its trends, including market size. If data are detailed and cover multiple years you might be able to compute annual changes in the marketplace (i.e., for product groups and customer segments). Quality of the data will depend on the source.

Primary data collection involves new research that is focused on collecting data specifically and uniquely for your research question or questions. For instance, if you want to know more about the buying behaviour of prospective customers and no secondary data is available or it is too generic, you could schedule interviews with relevant customers to collect these insights. Returning to our respiratory example, you may interview 10 anaesthetists and 10 employees of intensive-care units to collect the data and find answers.

Primary research requires basic knowledge of research methods and benefits from a framework or theoretical model of the phenomenon you want to study. In marketing, consumer behaviour, and strategy there are many models available that can be used as a framework. Identifying appropriate models, and using them to guide your research, will greatly increase the validity and reliability of the results. These models generally come with appropriate definitions and measures for the market constructs involved. In the academic literature there are, for instance, models of consumer behaviour, models of retailer and B2B buyer behaviour, customer journeys frameworks, models for comparing product alternatives (conjoint analysis), and frameworks for analysing competitive positions. A quick online search of the literature (e.g., using Google Scholar) will get you started. Just be sure to use the right key words (e.g., if you are unaware that the problem of creating enough charging stations for electrical cars refers to a phenomenon called ‘network effects’, you would not be able to find the most important articles and frameworks on the topic). Also be aware that many journals exist, and quality varies. An alternative is to ask a librarian for assistance. They are experts in locating high-quality information sources both off- and online.

Two very important types of primary research for the entrepreneur are: (1) the problem interviews with customers from the entrepreneur's alleged target segment, and (2) co-creation work with lead customers to develop the innovation, that is, product concept and prototype. The aim of problem interviews is to understand customers' product use and buying behaviour, and the problems (sometimes called 'pains') these customers experience. It helps validate the entrepreneur's hypotheses around customers' potential problems, and the envisioned solution. These interviews work best with clear research questions and using, for example, a half-structured questionnaire.

Co-creation work with lead customers requires close interaction, which fosters trust. This will help knowledge transfer between the entrepreneur (the researcher) and the customer (the respondent and study object). The close interaction represents data collection using a free format and continuous process.

In both problem interviews and co-creation work, it is important to use a representative 'sample'. Preventing or reducing sampling bias is a key issue in any primary data collection. For entrepreneurs who are doing market research on a limited budget and focus on emerging innovative ideas, the chance of bias is very real because the research is generally limited in scale and scope. It means that generalisability will be hard, and thus the chance of misinterpretation substantial. Relying on family and friends for product feedback is another frequent mistake.[3] It biases the sample because these two categories probably say what you like to hear, rather than give you honest feedback. Table 6.1 lists a number of sources for secondary and primary data collection.

*Table 6.1* Sources of market information

| *Secondary data collection sources* |
|---|
| • Census Bureau<br>• Chamber of Commerce<br>• Industry associations and societies<br>• Semi-governmental research agencies<br>• Banks<br>• Specialised market research reports<br>• Presentations on the Internet<br>• Newspapers and (industry) magazines<br>• Firms' annual reports |
| *Primary data collection sources* |
| • Market research agencies<br>• Own research<br>• Consultants<br>• Student projects |

The value of secondary data is highly dependent on the *credibility and reliability of the source.* (e.g., a specialist report in *The Economist* with clear references to the sources of data is more reliable than data mentioned in a magazine or local newspaper interview). In case of lack of consistency in data reported by different sources, search deeper to understand the different perspectives and definitions used. It may help identify and explain differences in estimations of the market size. You may also discover that many publications draw on the same underlying public report or database. In this instance it is good to search for this source and evaluate its quality and reliability.

## 6.4 Organising and analysing your data

Primary research can be performed by the entrepreneur, but also by, for instance, consultants, students, or market research agencies. In case of outsourcing, basic understanding of market research methods will be necessary to be able to judge the proposal and results, but also to prevent overspending.

Whoever does the research, it needs to have adequate external validity and reliability. *External validity* concerns asking the right subjects and measuring the correct things (so, if you want to study digital transformation of sales organisations, study organisations that actually have it and not those that just aspire to it). *Reliability* means that the measurement method used will render the same results when applied multiple times. Using measures with face validity and, preferably, existing scales is to be preferred. For instance, if you want to measure the length of an object you will use a tape measure and not something you self-created for the occasion. However, entrepreneurs and businesspeople who are unaware of basic market and management research may use poorly made questions, which compromise results.

Outsourcing may be useful in the short run but is no option in the long run. Maurya, the developer of the Lean Canvas approach, explains why:

> I constantly run across teams that try and outsource one or more of these three areas, which is usually a bad idea. When you outsource even one of development, design, or marketing [market research], you are at the mercy of someone else's schedule which can limit both your ability to iterate quickly and learn.[4]

The advantage of being involved in market research yourself is that you will appreciate the results more. More importantly, by interacting you will develop a better feeling for the customer's perspective on things. However, do get advice or learn some methods to prevent the most obvious mistakes.

Although you can collect market data as you go along, it is smarter to use a *systematic approach* from the start. Collecting secondary data should become second nature and be done continuously. Identify the most important information sources for your market and industry and keep track of them. The collected materials can be stored and periodically categorised, for instance, using the format of the external analysis of a strategic business plan: customers, providers/competitors, distribution, and general market information. Market data (numbers) are especially valuable and should be tabulated and analysed separately, if possible. These efforts and results will prepare you for market-related decisions and shaping and detailing your business plan. Specifically, it will also help you with the numbers test of your business model.

The mapping of the data using the format of the external analysis will provide insight but also help to identify areas where you lack information. It can be compensated by investing extra time in secondary data collection or even conducting some primary research.

Data analysis is an important step. For primary data this is relatively easy. Because the research is conducted for the start-up's specific aim, the method and intended analyses will have been decided before data collection. For secondary data the situation is more complex. Structure the data topic-wise using, for instance, a business plan format. First describe, and then try to add trend figures. Second, analyse or add primary insights to generate scenarios. In the case of a radical innovation scenario development can be used to explore the impact that the start up's innovation may have on the market (see Figure 3.1 and related 'Doing it right' section). A good starting point will be using your secondary market information to draw the 3D Abell matrix and develop an understanding of how current technologies are related to current customer segments and their needs. Next, scenarios of how the market might change because of the market entry of the entrepreneur and its new technology application can be explored.

The Lean Start Up literature offers handbooks and templates with interview protocols and best practices for customer interviews.[5] Although these are useful, they fail to stress the need to get familiar with market research methods first. Take for instance problem interviews. This requires you to let the customers talk and not influence them. Because you are exploring, you need to be alert for cues ('golden nuggets') that are only touched upon by the respondent but need further elaboration.

To summarise, it is important to collect information about the market, customer segments, competing products, and competition as well as trends in the market. This information enables you to understand market dynamics, including the benefits that the new product will bring to its customers. Market research will help you test assumptions and underpin your business model and plan. It does not just refer to surveys but also includes secondary (*desk research*) and primary data collection using, for example, qualitative methods.

## 6.5 Qualitative versus quantitative research

Research can be quantitative or qualitative. *Quantitative research* concerns research focusing on data presented in values and generally adheres to principles of statistics. Data are typically collected via surveys or experiments (e.

g., conjoint measurement tests). Measures (for the social constructs) are generally multi-item, to ensure validity and reliability, and analysed using statistical methods (e.g., cluster analysis, regression, or group means). The aim of quantitative research is to test a model or assumption. Consistent with this objective, relations between constructs must be known in advance and closed questions are used. These requirements make it *less appropriate* for many entrepreneurial settings, which rather need to explore new pathways.

In contrast, *qualitative research* does rely on numbers but uses text, images, or stories to capture phenomena and relationships between variables. It can take the form of, for example, in-depth or half-structured interviews, focus groups (interview with a group of people representative of a group), observation, collages (set of relevant pictures), and written feedback. Qualitative research aims to explore a phenomenon. It probably is more difficult than quantitative research because its probes the unknown. It thus requires the skill to pick up on little signals in stories and/or interviews. The important cues generally are in small side comments that need careful follow-up by asking someone to elaborate. Some suggestions can be made: First, it is important to first cue people, that is, have them access their relevant memories regarding the topic you wish to discuss. This will bring memories to the fore and make relevant knowledge accessible for the respondent. Second, ask respondents to identify and discuss 'critical cases' – real incidents that stood out, for example, an excellent versus a very poor service recovery experience. It will keep things fact-based and help highlight differences, which can help identify important antecedents. Third, ask people about their problems, and do not ask for solutions; people find it easier to talk about irritations than solutions.

The distinction between qualitative and quantitative research is not as black-and-white as it may seem. For example, in a small user test, respondents may be asked (at the end of the interview, for example) to also rate the new product compared to alternatives using a small scale. It may be used as a check of consistency of answers received in the open questioning. In a similar way, sometimes small quantitative samples are used to get a rough idea of how people in the market respond to an idea. This provides an indication and helps save time and money.

As for technical issues, customer- (and market-) related hypotheses should be tested. Along with a user test, the entrepreneur should for example test the product advantage of the product concept or prototype against its main competitors. The validation will help confirm the usefulness of success of the assumed USPs. It will also help determine the features or salient attributes of the new product.

The further you move ahead with your business the more important (traditional) market research will become. It will offer you the customer satisfaction and competitor data to make market-oriented decisions and respond in a timely manner. Therefore, it is better to begin developing market research skills early in the process and build your marketing information system as early as possible.

## Summary

- Market research is important to reduce risk in the entrepreneurial decision by helping validate assumptions made at different stages of the start-up's innovation process.
- Both secondary data and primary data can help. The first is freely available and provides a view of the market. The latter is costly but addresses the entrepreneur's specific questions and needs.
- Market research requires knowledge of methods and models. If this is lacking, seek assistance.
- By doing market research the entrepreneur will learn the importance of customer and market information for making decisions and building capabilities.
- Market research is best considered and organised as a continuous process evolving into a marketing information system.
- Problem interviews and customer co-creation are forms of qualitative research, and are prone to selection bias.

## Notes

1 Lynn et al. (1996); Christensen (1997).
2 Markides (1998), p.32.
3 Onyemah et al. (2013).
4 Maurya (2012), p.87.
5 See for example Blank (2007) and Maurya (2012).

Chapter 7

# The customer development process

**Key issues**

- Explain the need for a separate customer development process.
- Discuss the different steps of the customer development process and its relationship with product development.
- Explain the role of marketing and sales in the customer development team.
- Link customer development with business model development.

## 7.1 The need for creating customer buy-in

Marketing is essential for any innovation and start-up. It should help ensure product-market fit. If every innovation satisfied customer needs perfectly, the only marketing and sales activities needed would be creating awareness and ensuring availability. Sales would be easy and maybe even obsolete; Customers would appear automatically on the entrepreneur's doorstep and demand the product. Business growth would be instantaneous and success hard to avoid.

However, the reality is different. Innovations are usually far from perfect. Entrepreneurs struggle to interest prospects and persuade them of the new product's unique customer value. Why do entrepreneurs so often design products that customers do not want? First, latent customer needs are complex and multifaceted, and customers generally cannot express them clearly. Consequently, an entrepreneur's interpretation of these needs is inaccurate, resulting in a suboptimal new product. Second, start-ups may encounter technological problems and lack the funds and time to develop a well-functioning product. This reduces the innovation's attractiveness for prospective customers. Third, many entrepreneurs lack marketing and sales knowledge; as a result, they fail to understand that there is more to a product than just the nuts and bolts. They overestimate the customer value of their innovation and fail to understand the psychological resistance of customers to change their behaviour. Consequently, they also underestimate the marketing and sales efforts that are needed. Moreover, often special attention needs to be given to

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routines and actions to ensure value in the customer's use context. The product should function not only in the lab but also under normal use-conditions. For example, many smart products may seem to perform well, however, with many routers located in basements or cabinets connections may be too slow to guarantee optimal or even just decent performance. Failing to recognise this difference between created value and actual value-in-use can seriously truncate a product's chances.

Some innovations may be smash hits, but most are long hauls because they require significant behaviour change and adaptation. Therefore Peter Drucker, the father of management theory, stressed the importance of adequate marketing and sales investments:

> For every dollar spent on generating an idea, ten dollars have to be spent on 'research' to convert it into a new discovery or a new invention. For every dollar spent on 'research,' at least a hundred dollars need to be spent on development, and for every hundred dollars spent on development, something between a thousand and 10,000 dollars are needed to introduce and establish a new product or a new business on the market.[1]

Despite this old wisdom, O'Connor and Rice found in their research that companies systematically underinvested in marketing and sales. This even happens when managers are aware of the importance and investment requirements for market development and launch:

> While the technological development associated with breakthrough innovation (BI) is truly challenging, creating markets to stimulate their use may be an even more daunting barrier to successful commercialization. Co-development partners, distribution channel agents, and ultimate users are all required to adopt new processes and to change behaviors in many cases, and the outcomes are unknown. … These results show that market creation for BIs may require as much time and investment as their technical development. [However,] we do not find evidence of … organizations' awareness of or willingness to make these investments as readily as they invest in technical development.[2]

So, the key message is: Do not skimp on marketing support and spending for your new product. By the time it is launched, major expenditures have been made and all possible effort should be made to recoup these costs. Reducing marketing spending will decrease rather than increase the chance that the new product will be adopted by the market and thus become a success.

However, spending serious money on a market launch only makes sense if the new product has potential and is not a sure failure. If the product is seriously under par, even a brilliant marketing campaign will not save it. If this happens, the research and development investments are better considered *sunk costs* and the project terminated. To illustrate this, Table 7.1 shows the interaction between

*Table 7.1* The result of different marketing efforts in combination with quality of an innovation

| *Technical quality of the product application* | *Quality of the marketing effort* | *Total [sum]* |
|---|---|---|
| – – | + | – |
| – – | ++ | 0 |
| – | – | – – |
| 0 | 0 | 0 |
| 0 | ++ | ++ |
| ++ | ++ | ++++ |

Note: -, +, and 0 refer to 'below par', 'above par', and 'par', respectively. The number of entries identifies the impact.

technical and marketing quality for a new product. While excellent marketing can compensate for a less than perfect new product, it cannot salvage a very poor one. Similarly, a perfect new product may survive poor marketing support, but could have done much better if marketing had been adequate. So, the conclusion is that a firm should aim to get both its product and marketing right! A new product's quality and marketing effort *complement* each other.

Although included in most new product development models (e.g., stage-gate), customer development activities generally do not get enough attention. The classic product-centric approach includes some customer involvement to establish product requirements but leaves most of the customer validation until after the product is released. This works when the customer is already known. For start-ups, however, the customer (and business model) generally has (have) to be discovered. Therefore, customer development is better managed in a separate process from new product development. This will increase the chance of customer creation being awarded sufficient time, money, and attention.

## 7.2 New product development versus customer development

*New product development* is the process of creating a new product and bringing it to market. It is core to entrepreneurship. It involves several steps, including new product idea generation and selection, concept development, prototyping, market testing, and launch. While at every stage of the process both technical and marketing issues co-exist,[3] most entrepreneurs (but also many large firms) limit marketing and sales' effectiveness by leaving it till the end. They first develop the new product and then hand it to marketing and salesperson, telling them: 'Now do your best.' So "[w]hile customer input may be a checkpoint or 'gate' in the [new product development] process it [often] doesn't drive it".[4] This approach is a road to disaster. The winners at the game of new product development follow a different approach; they invent and live by a process of discovery and experimenting with customers in order to learn.[5]

Consistent with this, Blank[6] suggested that start-ups should complement their new product development process with a formal customer development one. He coined the term 'customer development' and used it to describe the parallel process of building a continuous feedback loop with customers throughout the product development cycle. This *customer development process* concerns locating a start-up's first customers, validating its assumptions about customer needs and behaviour, and growing its business by extending its small, initial customer base.

Figure 7.1 shows the two parallel processes of new product and customer development. We show them as complementary phenomena with serious, and preferably systematic, information exchange between them. While the product

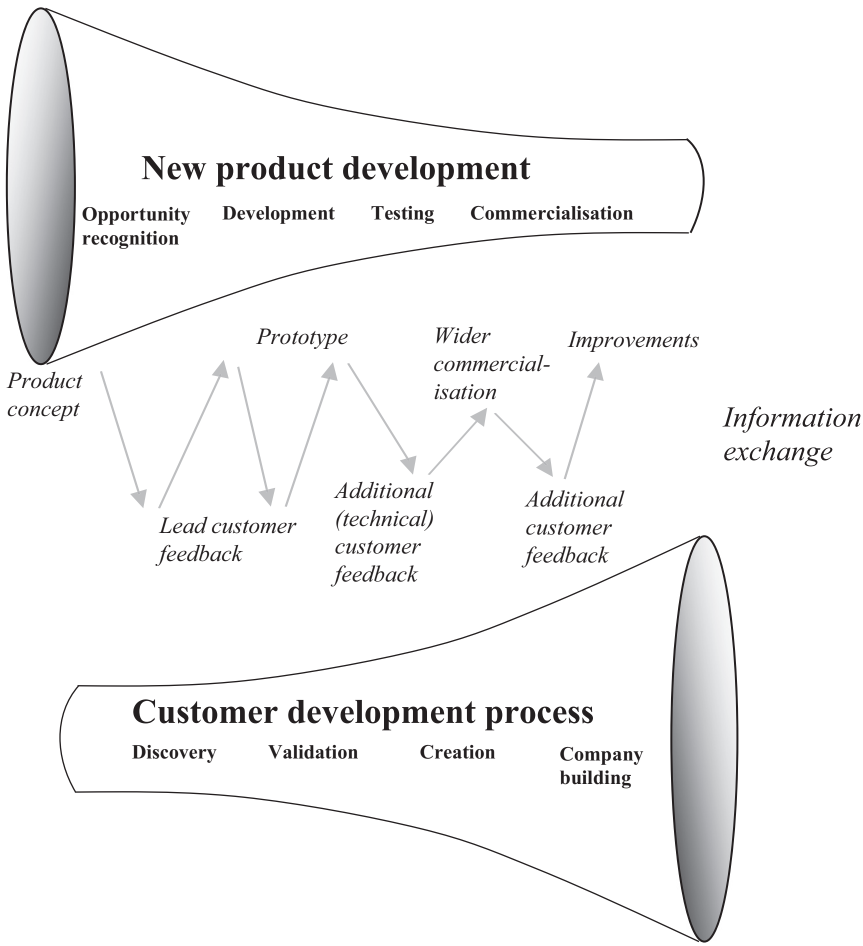



*Figure 7.1* The complementary processes of new product and customer development

development process begins with *a lot of ideas*, one of which eventually results in *one application for launch*, the customer development process begins with *one or a few customers* to respond to the start-up's product concept or prototype and ends, the entrepreneur hopes, with *a large customer base* purchasing the final product. Consistent with this observation we show the first process as a funnel and the latter as a reversed funnel.

Organising customer development as a separate process means making it *a project*. The goal is developing a customer base and sales level that are sufficient to sustain the firm's future and bring it to the next level. Organised as a formal project inside the start-up it warrants the allocation of resources, time, and attention to its cause. Because it is a project it has an end. This is when the success of the new firm's sales roadmap for converting new prospects into customers has been validated, and its customer base is large enough to sustain the firm and allow for further growth, that is, company building.

While complementing product development with customer development may seem a simple and obvious extension of the process, it is not. It requires a completely different way of looking at new product development. It requires embracing the idea of lean start-up to validate customer assumptions and iterate, but also to better recognise the value creation and delivery as two sides of the equation. Although the activities of product development and customer development may be done by one and the same person, simply recognising them as inherently different and necessary tasks is key. However, it will be better to have a product development team and separate customer development team with some links to ensure alignment and effective information exchange.

A *customer development team* should be appointed to manage the customer development. It should include, among others, the entrepreneur and the person leading the engineering effort. Preferably it will also include someone with a product marketing or product management background. If this person also has some technical knowledge it will facilitate the communications. The work of the customer development team should particularly help make the customer needs and feedback more central and prevent the start-up from going 'all the way' only to find out later that there is no demand for its new application. The customer development team is responsible for all early marketing and sales activities, such as identifying prospects and engaging in problem and solutions interviews, as well as identifying current alternatives in the market. After the start-up has developed a prototype and validated this successfully with its first and some extra prospective customers, the customer development team may be expanded with several people, including those responsible for additional selling and logistics (i.e., getting new orders out).

The best way to make progress is by setting simple objectives regarding marketing and sales activities and periodically, that is, weekly, taking stock of progress. This should include communicating results and the lessons learned from these activities at least once a month with external advisors and investors. The reflection on results as a team will help plan out the next set of activities and improvements. It ensures learning as a team while constantly iterating towards a plan that works. This is important because most teams begin with a low level of marketing and sales knowledge and thus need to build it from scratch.

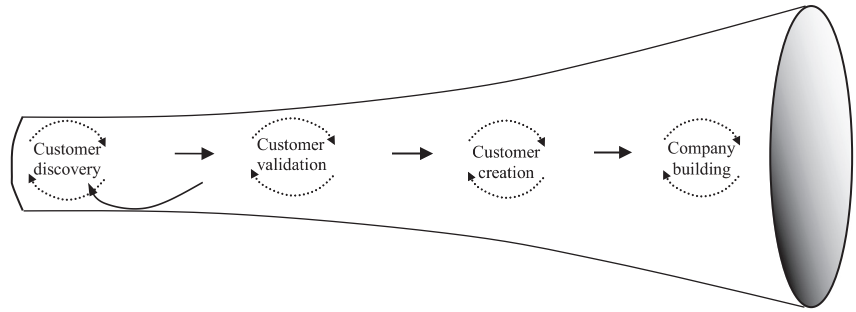
Blank saw customer development as not just necessary, but a driving force behind a company's direction. He wrote, "Customer Development must have the authority to radically change the company's direction, product or mission and the creative, flexible mindset of an entrepreneur." Because of its importance, someone or a team should carefully manage it. Moreover, to prevent conflict "this … team must have at its head one of the founders of the company, or if not a founder someone with an equal vote".[7] This will help ensure the process being taken seriously and getting the attention it needs. Venture capitalists that are involved should insist on such an approach.

The dual-process approach – of product and customer development – benefits from engineers who can think like marketers, and marketers and salespeople who understand the technology. That way, both processes can be integrated effectively and efficiently. If the new product development team and customer development team work together well (for instance, by using some joint members as linking pins), they can open the market by identifying the most promising segment and developing a specific product configuration (minimal viable product) that resonates with customers of that target segment, and thus has adequate product market fit. This is motivating for both the engineers and customer development team. This progress will increase the chance of sales growth and will allow the company to swiftly move forward.

Lynn and colleagues[8] found that success stories for new products shared several characteristics that match the process described previously. Successful firms typically had *probed* the market with immature versions of the new product as a vehicle for *learning* about the technology and customer needs. It was used to find out whether and how it could be upscaled. This probing gave insight into the market and the market segments most receptive to the various product features, as well as about the influence of exogenous factors such as changes in government regulations. Rather than using regular marketing techniques, successful firms ran several market experiments to introduce prototypes in a market segment or even a variety of market segments. This research was used to probe, learn, and probe again. It was their way of validating assumptions that the product developers had while coming up with the new product concept, particularly assumptions about customer needs and potential market demand. Lean start-up approaches are based on and extended this idea towards entrepreneurial action.

## 7.3 Steps of the customer development process

Figure 7.2 shows the different stages of the customer development process, namely *customer discovery, customer validation, customer creation*, and *company building*. [9] It also draws attention to the iterative nature of the process




| MARKETING ACTIVITIES | | | |
|---|---|---|---|
| • Initial market description<br>• Initial buying behaviour analysis<br>• Initial target segmenting<br>• Define initial value proposition<br>• Problem interviews | • Develop value proposition and positioning<br>• Develop initial marketing mix<br>• Perform creative marketing<br>• Support sales<br>• Prospect list<br>• Help specify features/minimum viable product | • Build on the initial sales to create additional end-user demand and build a distribution channel.<br>• Consider how to address pragmatists<br>• Educate the market; step up awareness-building<br>• Create price list, sales/communication materials, service | • Move toward traditional or 'planned' marketing<br>• Begin differentiating between marketing and sales<br>• Continue asking for feedback<br>• Address the majority more and more |
| | | | |
| • Identify prospects<br>• Obtain feedback from customers of identified and other segments<br>• Establish problem recognition | • Identify and approach lead customers<br>• Explore preparedness to co-finance<br>• Begin developing sales roadmap including prospect list and sales approach<br>• Facilitate customer feedback<br>• Visit prospects; create awareness, support for development effort | • Visit more customers and detail and fine tune sales message etc.<br>• Begin up-scaling the sales effort finalising roadmap<br>• Educate customers, organise roadshows/demonstrat ions<br>• Collect and distribute internally the customer feedback | • Expand sales hunting and begin maintaining and building accounts<br>• Expand sales force rapidly and systemise/routinise operations |

*Figure 7.2* Customer development process and marketing and sales activities per stage (adapted from Blank 2007)

and its steps. Failure to make progress implies redoing the step and its validation activities (see the feedback loops).

*Discovery* refers to identifying the start-up's potential customers, that is, target segment, and doing problem interviews to get initial feedback on the idea for the innovation as a solution to an assumed customer problem. *Validation* concerns working with a set of leading customers to develop (and, if necessary, repurpose) the product application. The prototype can be validated, and product characteristic found by asking for customers' response and recommendations regarding the solution that it represents. The result should be the *minimal viable product* or MVP. The MVP addresses the top one to three 'must-have' problems customers have identified as important to them and should deliver enough value to justify its price, and thus for customers to be willing to part with their money. *Customer creation* builds on the success of the start-up's first sale and uses the first customer (s) as a reference to expand the customer base. The goal is to move beyond the group of leading technology enthusiasts to more pragmatic early adopters. The MVP may be enhanced and a sales roadmap should be developed and fine-tuned to prepare for a more systematic and proven roll out. The final stage of *company building* involves institutionalisation of practices and developing departments. This is when customer building and effectual marketing turn into more traditional marketing and sales. This is also where the customer development team is dissolved and activities (tasks) are formalised in relevant units or departments. Now the search for developing and launching additional products can begin.

All four stages of the process involve various iterations, suggesting that the customer development process is far from simple or linear. This is shown in Figure 7.2 by the feedback loops and a backward arrow accounting even for potential repurposing of the start-up's technology.

Blank[10] sees the discovery stage as one of developing and testing hypotheses about the start-up's product idea. It means interviewing customers and finding out whether it addresses *a problem worth solving*. The face validity of the proposed innovation's benefits or advantages over existing products on the market must be established too. These advantages should be sustainable and thus hard for others to copy. By talking to customers of the segment that seems to have the best fit with the innovation, a first validation is possible. It concerns the first step of what we have labelled 'effectual segmentation, targeting and positioning'.

The goal of the customer validation stage is moving things to the next level by developing a prototype. Based on the idea of probe-learn-probe, this should be done together with one or more innovative, leading customers. The aim of this collaboration is to establish that the product or service idea can be developed into a customer solution. To find appropriate leading customers, the entrepreneur should network. If he or she finds customers who recognise the latent need and are willing to co-develop the new application, the entrepreneur could explore whether these customers are also willing to share the development costs. Such early buy-in will help create committed partners and continuity. It is also the ultimate early market validation. Next, the prototype can be presented to other potential customers to further explore its value. These customers also can be asked to help share development cost in one way or another, or pre-order.

Just like during customer discovery and validation, also in the customer building stage customer involvement is key. However, now *attention shifts from validating qualitatively to verifying quantitatively*. With the product-customer fit confirmed, the start-up now can expand its number of customers to test that the solution (minimal viable product) resonates in the broader target segment (or market) too. Prior customers can act as reference for the new prospective customers and help educate the market. They can help create awareness for and interest in the start-up and its application (i.e., customers as active promoters).

By adding customers a quantitative verification is done. To make the transition from enthusiasts to early adopters the prospect list will need to be expanded.

Adding more customers will not only enhance the start-up's stability but also allow for completing its marketing and sales strategic and tactical decisions. The content, form, and media should be determined and the distribution channel, price, and product features decided. It can build on experiences from the customer journeys and business processes with prior customers. Close cooperation internally with production and logistics will be needed to get important insights in delivery dates and cost structure. The positioning statement for the product or service can be optimised, just as the sales message and roadmap. Ideas about price structure and channel decisions will become clearer now too. Price lists will be printed and consistently used.

A double-digit sales growth in three or four consecutive periods will suggest that the organisation is on track mastering its customer building capability. Now, the start-up is ready to expand the salesforce and continue with actual company building.[11]

At the company-building stage, the effectual marketing and sales are traded in for more traditional approaches. Because the customer value of the new product has been validated and the target customers are clear, the firm can ramp up. The marketing and sales roadmaps can be scaled up. The challenge now is expanding the market by shifting more and more to mainstream customers. This may require creating the next version of the firm's product and thus begin building a product line for its brand. The firm can learn from ongoing customer feedback and information on how the market is evolving.

**Doing it right: stakeholder management**

Although the four steps of customer development include the most important stages and activities to ensure product-market fit and working business model, they fail to recognise the importance of stakeholder management.[12] There is increasing recognition that an organisation must be sensitive to the priorities of multiple stakeholders in a market because they can profoundly influence customers' thinking and actions. Sometimes a collaborative of firms is required to accomplish a system change and make an application perform well in the customer's context.

Leading innovators can boost their innovation capacity by tapping into the ideas, knowledge, and expertise of their stakeholders, but should also identify and manage concerns of parties sceptical to its technology and application. They need to consider how many and which stakeholders to integrate into their new product development (NPD) processes, and at what stage. Extending the customer development process with this extra layer of complexity can seriously enhance the chance of success and acceptance by the market of the start-up's innovation.[13] However, sometime stakeholder management is also mandatory to making the new business and its business model work.

Stakeholder analysis and management are part of the customer validation step and extend to customer and company building.

## 7.4 The relationship with the business model

It is important to complement our view of new product development and customer development processes with the strategic level of the business model discovery (see Figure 7.3). The three processes are very much interrelated.

The objective of customer discovery and validation is to ensure product-market fit, but even more so to begin the process of identification and development of the start-up's business model. Based on customer feedback, both the product concept and target market may change, which can have a major impact on the new firm's business model, that is, how it can and will make money.

If initial customer feedback on the product concept is positive, customers' willingness to pay can be accessed. This validation can be repeated when the prototype of minimal viable product has been developed. Depending on the type of product and use, different revenue models may be considered (e.g., sell product, also offer training, subscription). Much will depend on how customers weigh all benefits and cost (see example of Inmotio discussed below). Once the general business model that will be adopted becomes clear, it then can be further developed, detailed, and ultimately fine-tuned.

However, if the feedback is negative, serious changes may be required to the product before the search for a business model can begin. Several iterations, using experimentation, are typically necessary before finding the (initial) product-market fit and identifying a possible business model.[14] Much will depend on the type of problem that is addressed by the new product. It is much easier to

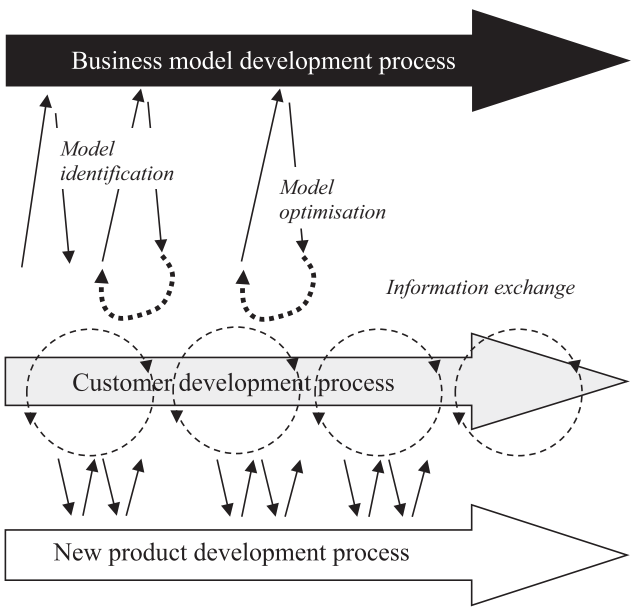



*Figure 7.3* Relationship of customer and product development with business model development

develop a business model for solutions to a problem worth solving than a problem that does not meet this criterion. Consequently, the search for product-need fit is critical in the process of identifying a viable business model.

An example of this process of changing a business model is the start-up Inmotio (www.inmotio.eu/en-GB/2/home.html; accessed 16 December 2016), which we mentioned earlier (see Chapter 4). The firm developed a system to monitor and analyse sport teams' and individual athletes' performance. The Inmotio system and software combines video and statistics to make graphs and animations. First, the firm focused on selling the equipment. However, as the system is expensive and complex, sales were slow. Next, it began focusing on leasing the equipment and helping coaches with the analyses of data collected. This reduced the initial investment required, increased customer value, and stimulated adoption. Using a modular product and service structure, customers can now select the element they like and have the option to develop new extensions in cooperation with Inmotio's staff.

The example shows that the firm's progress in product and customer development processes is closely related with progress in its business development process; the processes are very much intertwined. So, recognising that all three processes are important and require adequate attention is key. However, particularly customer and business model development are closely related through the factors of market size (potential number of customers) and the pricing model (can cost be recouped based on the anticipated price customers are willing to pay and the number of customers we expect to win over?). Apart from considering how to reduce cost to increase profit margin, the entrepreneur may also wonder how to further increase the value of the new product to increase customers' willingness to pay. In addition the entrepreneur may reconceptualise or offer the value in another form or using a different format (e.g., subscription) to make it more attractive. Thus, creativity is a useful trait to imagine and explore options.

## Summary

- Without customers, there is no business. So, discovering and building customers is as important as creating the new product.
- Customer creation is best organised as a separate, formal customer development process.
- The customer development process involves four stages: customer discovery, customer validation, customer creation, and company building.
- A customer development team should be appointed and take charge. It should include the entrepreneur.
- Regular meetings will ensure learning and making better plans to develop the firm's product-market fit and customer base. Appropriate business measures should be developed.
- Customer development should help collect information for improving the product/service's customer value and for identifying the start-up's business model.

## Notes

1 Drucker (1973), p. 785.
2 O'Connor and Rice (2013), p. 209.
3 See, for example, Cooper (1983). In this early work, Cooper showed how marketing contributes through market assessment, concept identification, concept testing, marketing plan development, prototype testing with customers, performing test markets, and launch.
4 Blank (2007), p. viii.
5 See, for instance, Lynn et al. (1996); Leslie and Holloway (2006); Blank (2007).
6 Blank (2007).
7 Blank (2007), pp. 38, 213.
8 Lynn et al. (1996).
9 Blank (2007).
10 Blank (2007).
11 Leslie and Holloway (2006).
12 Driessen, Kok, and Hillebrand (2013).
13 Juntunen et al. (2019); Jaworski et al. (2020).
14 See, for example, Dmitriev et al. (2014).

Chapter 8

# Developing a marketing and sales programme

**Key issues**

- Discuss the idea of a simple one-page plan to guide marketing and sales activities.
- Identify the three core elements of the plan: build customer value, market presence, and customer relationships.
- Discuss the relationship between the core elements and the marketing mix: promotion (communications), product, place (channel), and price.
- Detail the four Ps of the marketing mix.
- Understand the importance of creativity to compensate for a limited marketing budget.

## 8.1 A one-page marketing and sales plan

A marketing and sales plan identifies the goals, market strategy, and marketing and sales tactics that will be used to approach the market. It details the actions. By updating the plan weekly, new ideas evolve that help to plan actions based on what is learned. The aim is to (1) specify the product-market fit and thus the customer value; (2) create product awareness and market presence; and (3) approach and turn prospects into customers.

At first, the plan will not require more than one to two pages.[1] Later, as more assumptions have been validated and more is known about the target customers and their needs, as well as about the value proposition, the plan can be expanded. Writing down the marketing decisions and actions will force the entrepreneur to specify the overall customer development goals, but also specific marketing and sales goals, strategies, and tactics. Much of the initial plan only concerns *assumptions* about the market, customers' problems, value, and customer response. To prevent confusion between facts and fiction, one could print assumptions in red and change them to black or blue print after they have been *validated.*

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Working with subsequent customers, and using additional experimentation, the product configuration, price, distribution, and sales message can be further developed and tested. With a more complete profile of the target customer, the marketing and sales plan will become more detailed, substantial, and better structured. Routines will develop and more professional marketing and sales materials created. While in the beginning the plan may seem like an action list, later it becomes a marketing and sales report. Materials that back up the decisions you make at each stage of the process should be collected and included in the document or filed at the back of the plan as appendices. As the lean start-up approach recommends, it is important to make explicit assumptions at each stage of customer development and then test them.

In the plan it is important to distinguish clearly between users, prospects and customers. Users are the ones operating the product or using the service. Customers are those who buy it. Of course, the two are not necessarily the same. In business-to-business settings, buying decisions are generally made by a decision-making unit (DMU). To successfully approach and persuade such a DMU its members need to be identified, understood, and approached with individualised messages. Finally, prospects are potential customers. So one will pursue prospects to turn them into customers. Sales will 'hunt' for prospects, and 'farm' existing customers.

The *customer development team* is responsible for making the plan. Weekly team meetings foster learning while constantly iterating towards a plan that works. Because start-ups often have limited resources creativity is required to compensate for this lack of funds.

To monitor progress in the young firm's customer building, the team should develop a set of *business metrics*. In the beginning very simple measures will suffice. Measures such as, for instance, burn rate (i.e., speed at which money is spent), number of prospects approached, number of presentations delivered, and progress in bringing prospects closer to buying or investing can be considered. Later, the set will begin to resemble the indicators of established firms such as: number of new orders/order size, customer acquisition cost, average selling price, customer lifetime value,[2] customer satisfaction/net promoter score (positive word-of-mouth), and news coverage/viral coefficient. It is a worthwhile time investment to determine relevant metrics to measure progress. Which measures will be best depends on the type of start-up, product (service), and industry context.

The use of business metrics will help the customer development team *act accountably*. The metrics can help the team show how their marketing and sales investments contributed to customer building, and thus to the start-up's development. This will build trust and support among the start-up's engineers for the customer development team and its work. Reliable metrics will help secure the necessary investments in customer development, but also to motivate the team. Keeping motivation up among sales staff who are doing cold calling is particularly important.

## 8.2 Content of the plan

The one-page plan should focus on creating customers for the start-up's new product application. Its focus is on building three core elements:

(1) *customer value*, (2) *market presence*, and (3) *customer relationships*.[3] Table 8.1 identifies general content and structure of the plan. It distinguishes between objectives, validation/verification tools, and project management instructions. A team can fill in the format and each week review last week's results and identify new, subsequent activities.

We continue with a brief discussion of activities for the three core elements of the plan:

- *Building customer value*. If all goes well, the start-up's product application represents a solution to a problem worth solving. If so, it should hold a lot of customer value and be an easy sell. In the plan this value should be identified, validated, and optimised. This is first done by conducting problem interviews. The second step of early market validation of the anticipated value is involving leading customers. This can be via feedback on a prototype, or even helping co-create the prototype. Attention should focus on identify the core functions and thus the minimum viable product (MVP): a product that delivers on promise (so has sufficient value-in-use) and is not over-engineered. Another method of early market validation of the value created is asking customers to co-finance the development effort or pre-order the product. At the early stage of development there is still much that can go wrong. Therefore, managing customer expectations is an important part of the value-building process; customers understand that developing new technology and applications can be difficult. However, they like to be engaged with a provider who is in control. Excellent service and recovery processes should be put in place by the customer development team. It is important to attend to this topic in the brief marketing and sales plan.A final important marketing aspect of customer value creation concerns pricing. The prototype will provide insight in the product's cost and cost structure. This can be used to begin thinking about pricing. The business will be viable only when an adequate margin can be earned. Exploring customers' acceptable price range is an important validation instrument. (We return to this in the discussion of price setting.) The objective will be to find the right customer value, that is, the right balance between cost (including price) and benefits for the customers to make the business model work.
- *Building market presence*. Besides having a good product, business success depends on market presence. Two dimensions are important creating awareness and access to the market. First, the market needs to know about the start-up and its innovation to be able to act on it, which requires creating awareness for them in the (target) market. It generally requires a lot of

*Table 8.1* Content of the one-page marketing and sales plan

| *Build customer value* | *Build market presence* | *Build customer relationships* |
|---|---|---|
| *Marketing/sales instruments* | | |
| • Product*<br>• Price* | • Promotion*/communication<br>• Place*/channels | • Selling<br>• Customer relationship management |
| *General objectives* | | |
| Formulate (unique) value proposition/ positioning statement<br>• Specify minimal viable product/ features<br>• Identify requirements for value-in-use<br>• Develop service support<br>• Solution/brand experience<br>• Identify price range, then price list<br>• Warranty issues | Create awareness for product/ start-up<br>• Influence experts/opinion leaders<br>• Educate the market/engage in discussion/ press materials<br>• Develop website; manage Web presence<br>Brand<br>• Ensure correct product categorisation<br>• Create name; right associations/image<br>Access demand<br>• Decide on distribution; how or with who you will deliver the product<br>• Coordinate messages across touchpoints | Customer relationship management<br>• Understand target segment size and behaviour (incl. DMU)<br>• Prospect list<br>• Develop USPs and sales message<br>• Develop detailed sales roadmap/pitch<br>• Develop sales support materials<br>• Monitor relationship development<br>• Stimulate repeat and up-selling |
| *Validation/verification tools* | | |
| Customer problem interview<br>Customer solution interview<br>Feedback on prototype<br>Product comparison test<br>Customer acceptable price range<br>Customer use context/business processes | Customer journey study<br>User feedback on website<br>Product categorisation check<br>Check messages with target audiences<br>News coverage | Early buyer/development buyer<br>Sales funnel progress<br>Conversion rate/acquisition cost<br>Customer satisfaction<br>Willingness to be reference, promoter<br>Test message across members DMU |

| | | |
|---|---|---|
| *(Structure)* | | |
| *Project information* | | |
| Objective this period (week)<br>• Activity: task and aim<br>• Responsible person<br>• Deadline | Objective this period<br>• Activity: task and aim<br>• Responsible person<br>• Deadline | Objective this period<br>• Activity: task and aim<br>• Responsible person<br>• Deadline |
| *Monitoring* | | |
| Evaluation of progress<br>• Per activity<br>• Per objective | Evaluation of progress<br>• Per activity<br>• Per objective | Evaluation of progress<br>• Per activity<br>• Per objective |
| *Possible metrics* | | |
| • Superiority compared alternatives in market for target segment<br>• Average price/order | • Number of presentations, feeds<br>• Website visits; viral coefficient<br>• Attention in press | • Number of prospects contacted<br>• Average acquisition cost<br>• Customer satisfaction |

Note: *Traditional marketing instruments 'missionary' work to 'spread the gospel', and possibly even a great deal of educating the market (if the technology and application are radically new). *All* members of the entrepreneurial team can help with making presentations and appearances, particularly at places where many potential innovative prospects meet. These meetings and presentations will help the customer development team understand how innovative customers think and act, but also how they respond to the new technology and application. Building market presence benefits from support of opinion leaders and press coverage. Your goal should be to create a positive attitude towards your new product. The correct and positive *associations* should be created to ensure a positive attitude of these potential customers. This is easier when the associations are linked to a brand or company name. By identifying and promoting the desired brand associations the team can communicate them effectively and optimise them based on feedback they receive. Communication channels need to be identified and messages developed to explain the unique value of the innovation and support the salesperson fostering customer relations. Second, market presence is also accomplished through distribution. Although the Internet has made it much easier to reach out to customers and distribute your product, other channels may be required to allow for the right installation and service support for your product. In that case a network of agents, dealers or so-called value-added resellers may be required. Often start-ups choose alternative channels of distribution because existing channels are occupied and even blocked by incumbents.

A careful analysis of how to get market access and bring your products to the customers will be required. Plans to move forward of channel development will have to be created.

- *Building customer relationships.* To sustain the business, the start-up will ultimately need a good customer portfolio. However, first, the right target segment for its innovation needs to be discovered and validated. Using market research, insight into these customers' buying behaviour can be developed and leading customers and opinion leaders identified. Next a prospect list should be created, and the leads qualified and thus prioritised. Hopefully it results in early sales or willingness of one or a few leading customers to co-create a prototype together.
- For the co-creation with leading customers sales should pay particular attention to two things: First, the right customers need to be selected. The customers to involve should be innovators but also a good representative (or opinion leader for) other customers in the market. These customers should also have a positive attitude and promise to communicate and share problems with the start-up's development team and not to the market. The objective is to jointly travel this road and create the best possible product together.

- The start-up's salesperson needs to navigate between customers and the product development team and help specify the features of the MPV. Second, the customer development team should make sure the right governance mechanisms are installed. Tensions that may arise should be effectively addressed by these governance mechanisms. This may include "temporary asset colocation, network closure, knowledge-based boundary objects, rights allocation agreements, and liaison champions".[4]
- The sales task is particularly hard as long as a physical product and price list are absent. Still, trying to accomplish buy-in and generate cash flow are important to help the start-up survive. It requires a lot of missionary work and building understanding and belief in the start-up's innovation and team. It benefits greatly from all entrepreneurial team members helping to influence the relevant stakeholders of the customer organization.[5]

The three elements mentioned are important for moving the start-up's marketing forward. Budgets should be set and resources allocated to the different tasks, and the timing of activities should be considered and decided on. The customer development team should make sure the money and resources are spent as planned. Weekly meetings and reviews help to determine the optimal timing of marketing activities, based on current market dimensions as well as competitors' and customers' attitudes and activities.

We will continue with a detailed discussion of marketing instruments before we discuss the role of sales in the next chapter.

## 8.3 Marketing instruments

A marketer has at least four instruments to launch a new product and manage it over its life cycle.[6] These are: *product, price, place*, and *promotion.* [7] These tools are an integrated part of the one-page marketing and sales plan: product and price can be used to establish the start-up's customer value; and place and promotion contribute to build the market presence of the start-up and its innovation (see 'means', bottom of Table 8.1). Sales complements these marketing instruments and is tied to customer relationship management.

In the literature many alternative classifications of marketing instruments exist. For example, for services seven rather than four 'Ps' are suggested. Because services are intangible and are produced in the presence of the customer, *personnel, process*, and *physical environment* were added. All three extra 'Ps' affect a customer's experience:

*Personnel* refers to frontline employees – for example, sales and service employees. Their attitude and presentation are important dimensions of this instrument because they affect customer perceptions of the firm and the service it delivers.

*Process* concerns service delivery and uniformity of service quality. During this process, service consumption takes place.

*Physical environment* refers to the context in which the service is delivered, that is, the quality of building/room, atmosphere, and other physical cues.

There are also completely new versions of the traditional marketing instruments. Dev and Schultz (2005), for example, suggested a customer-focused alternative of four factors: Solution, Information, Value, and Accessibility (SIVA).[8] While SIVA excels at translating the needs of the market into actionable business behaviours, its customer-dominated design makes the factors less actionable and controllable than the original marketing mix. We resolve the tension by using our higher-order core elements of customer value, market presence, and customer relation development to explain the relationship between the instruments and customer-oriented effects.

We continue with a detailed discussion of each marketing instrument. We begin with the instruments related to customer value, that is, product and price.

## 8.4 Product: designing a product application and product line

### *Product design*

Product design is an important source of sustainable advantage. As Alan Lafley, CEO of Procter and Gamble, once put it: "Design can unlock the technological performance we build into a product and help the consumer see it, touch it. Good design is serious business."[9]

*Design* refers to the actual form and shape of a product. Besides features delivering functional and emotional benefits, it also includes aspects of product appearance (e.g., aesthetics, symmetry) that influence customers' evaluations and choice.[10] As such, design has a major impact on the value of a product application for customers. Finding the right mix of features and aesthetics is particularly important. Because features often raise prices, important trade-offs are involved in adding them. Different customer segments may perceive and evaluate a design differently. Some prefer functional value, while others are also affected by aesthetic or hedonic elements.

An interesting aspect of design is the relationship or resemblance between the new product and existing products currently on the market. Any new product will be looked at and categorised by prospective customers. If the new product's design shows similarities with familiar products, this may result in categorisation in the same product category. If the new product has different characteristics, it deviates from existing norms and expectations, which may result in confusion and, for instance, the emergence of a new category. Entrepreneurs should be aware of this phenomenon and account for it. They should decide which categorisation would serve their needs best.

When co-creating with lead customers, it is important to distinguish between core elements and more peripheral features of the design. The aim should be to get the core features right to create the MPV. Developing a *prototype* together with leading customers is a useful approach to address this issue. This simple, initial representation of the product makes it easier to grasp and discuss functions and features. The ultimate goal is to find the right mix of features for the customer and then develop it further towards a reproducible product for a broader set of customers, that is, the target market.

Assuming that leading customers are more adventurous and knowledgeable innovators, some rationalisation of product design may be required to persuade early adopters and the rest of the market to adopt the new product too. Research shows that expert customers have more imagination and thus may link a futuristic or different product design to their needs more easily than less knowledgeable customers. To prevent chasms, special attention to product design will be required.

### *Products as bundles of attributes*

Psychological research suggests customers see products as bundles of attributes.[11] The concept helps the entrepreneur focus on important features and with the positioning the innovation.

Customers determine the value of a product by focusing on its *salient attributes*. These are product features that customers think are important because they offer the actual benefits. These benefits help them solve their problem or reach the goals they have in their business or private lives. Products that score high on these salient attributes will be viewed more positively than those with low scores.

Not all customers in the market may value and thus evaluate these salient attributes in the same way. Different segments may exist with their own preferences and thus optimal configurations. However, generating a good score is not enough. Only if the new product, that is, innovation, outperforms competing alternatives, at least on some of these attributes, will it stand a change of creating change in the market. As was mentioned, most new technologies and their applications have some attributes that bring new value by addressing latent needs, but often underperform on some other dimension. If the overall benefit score is favourable compared to alternatives for at least one segment, this segment can be targeted and initial market share build.

In Table 8.2, we offer an example. It shows how the first hybrid (electrical) cars excelled on environment friendliness but performed poorly on the attribute of driving range. Given that hybrid cars were relatively expensive, this attribute might have received an even lower score. However, it still was an attractive alternative for environmentally conscious people with enough buying power. The table explains why they would gravitate towards the new option. On the left-hand side we see the set of salient attributes. The average weight or importance of each attribute for this segment, called *belief*, is shown too (such a score can be found using market research, for example, a survey). The average rating of the two product alternatives (i.e., the current and new product) are illustrated. Because the overall score (belief $\times$ rating) for the new product is more favourable, this product is considered of superior (customer) value and will be chosen and purchased over the petrol (or e.g., diesel) car.

*Table 8.2* Illustration of the product attribute model for hybrid (electrical) cars and the environmentally conscious consumer target segment

| *Environmentally conscious customer evaluations:* | | *Petrol car* | *First hybrid car* |
|---|---|---|---|
| | *Beliefs (importance, 1–5)* | *Evaluation (1–10)* | *Evaluation (1–10)* |
| ***Salient attributes:*** | | | |
| Performance/driving range | 4 | 9 (excellent) | 6 (fair) |
| Price | 3 | 7 (moderate/low) | 5 (high) |
| Environment | 8 | 3 (poor) | 7 (excellent) |
| **Total score*** | | **73** | **95** |

Note: Total score $\sum^{n}_{i=1}$ (Beliefs $\times$ Evaluation) so, max. possible score = 150

### *Product line issues*

Although leading customers and innovators will be attracted to an innovation due to their enthusiasm for the new technology and its design, its quality generally needs to be improved rapidly for the start-up to attract the more pragmatic early adopters and early majority in the market. These customer groups only adopt when risk is low and when advantages clearly outweigh costs. Thus, optimising your product soon after market introduction is important. If your new product uses new technology, technological evolution may help accomplish this (e.g., acceleration and maturing of LED technology seriously increased lumen and helped move from low-quality level applications such as Christmas lights to more high-end applications. Similarly, progress in battery technology helped increase the driving range of electrical cars making them more attractive to a broader set of customers).

Based on the feedback of early adopters, you may be able to enhance customer value by adding (or optimising) product features or trimming non-essential (extra) features. You may decide to launch a new version (new product 2.0) while also keeping your original option on the market, thus creating a *product line*. A product line is a group of related products defined by their functions and customer market, forming a coherent series. Adding a similar product with more or fewer features is considered upward and downward stretching, respectively.

A product line can be described using three dimensions: length, breadth, and depth. Length refers to the number of similar products carried to cater to the firm's customers (e.g., coffee, espresso, cappuccino, latte). The more variety, the longer the line. Depth refers to the level of variation in a product line (e.g., size, flavours or other distinctive factors). Breadth refers to the total number of product lines of a firm (e.g., product lines of juices and pastries can also be found at a café). Although unimportant for the entrepreneur's first MVP, we do like to point out that product line design is a central issue in marketing. It serves to better cater to different needs in the market and keep the competition out. However, increased costs associated with adding products to the product line and potential cannibalisation should be accounted for. The trade-offs between these factors determine which products are best developed and offered and at what price points.

The basis for a product line is the attributes from which a product is made. Using these attributes, an optimal configuration can be created for multiple, different market segments. Showing the different configurations to these target customers, and varying the set and levels of attributes, permits assessment of their willingness to pay for these more customised products. Market research technique for this is called conjoint analysis. Yet again, for start-ups, the advice is to focus on the MVP first. Launching it will generate important feedback that can be used to optimize and extend if necessary.

### Example – GoPro's product line development

In 2002, a brand-new camera maker emerged: GoPro. Inventor Nick Woodman got the idea for the small action-camera during a long vacation, after his first start-up in online gaming had crashed. The aim was to make cameras for surfers. The original, 2.5 by 3-inch product shot 35 mm film. It debuted at an action-sports trade show in 2004. The 35 mm camera (model #001) became available on 13 April 2005, and came with a clear case with quick release, a camera strap, a ski glove adapter lash, and a roll of 24 exposure Kodak 400 film.

New models, in rapid succession, incorporated digital stills, video, audio, and every megapixel and memory upgrade the marketplace came up with. In 2006 the company introduced its first Digital HERO, with 10-second video capability, and generated $800,000 in revenue. The following year GoPro sales quadrupled to $3.4 million. On 24 October 2011 the HERO2 was launched. It had an 11 MP image sensor, improved low-light capability, and recorded at up to 120 fps. It was sold with three different accessory packages as the Outdoor, Motorsports, and Surf Editions. In 2014, the company was selling the HERO3+ in editions of different colours. It was capable of filming in 16:9 aspect ratio, supporting 4K UHD video and 12 MP still photographs. The HERO4 was introduced on 24 September 2014. In September 2017, GoPro released the HERO6, which claimed improved stabilisation over the HERO5 models and is capable of capturing 4K video.

The example illustrates how the start-up began with a simple first product aimed at the niche market of surfers. It then expanded product range and target audience. The aim was to offer customers more choice and keep the competition out.[12]

Less driven by excitement for new technology than innovators, pragmatists like to compare your new product and its pros and cons with different alternatives available on the market. So, explaining to these customers your product's benefits compared to alternatives and substitutes is important. Prior customers' references and product trials can help to reduce scepticism and persuade customers that your product, indeed, outperforms the competition. Make sure your product substantially outperforms the competition on at least one or more dimensions used to position it. If the difference is marginal customers will be disappointed and reject it.

## 8.5 Price: how to set your price

### *Acceptable price range*

All too often, entrepreneurs claim that their product is unique and valuable. However, the proof of the value of a product lies in the market that will develop and in the price that customers are willing to pay. If a new product has value, customers are willing to pay the price and engage in exchange. If customers are unwilling to pay the price, the performance/price ratio of the new product should be seriously reconsidered.

Price level and cost together determine the profit margin. If the price level is too low the margin will be low or absent and the business not viable, unless other forms of income can be secured, for example, advertising income. Still the numbers need to add up. Because in the beginning the total costs are hard to estimate and decisions are hard to reverse (once you introduced a price it is hard to raise it without aggravating customers) price setting is a hazardous task. Thinking about a price range is a good first step.

However, not only margin affects profit. Profit is the multiplication of volume times profit margin. So, high volume may make up for low margin. We often see entrepreneurs gravitate to cost reduction in response to customers' low willingness to pay, as an attempt to increase volume. As a result, they often reduce their design and thus the customer value more. An alternative may be to enhance value by extending the design. Then a higher price may be warranted. Thus, the message is to think about price more broadly and creatively and not immediately resort to price- and cost-reduction strategies.

But, how can one determine the price – or price range – for a new product? Existing alternatives in the market create 'reference points' in the minds of customers that they will use to rank your solution. It thus is important for the entrepreneur to understand the prices of these alternatives and position against them. In the rare case you are solving an entirely new problem or have no reference points, you may have to simply pick a starting price and refine from there.

Rather than a specific price it is better to think of an *acceptable price range.* This refers to the expectation in the minds of consumers regarding price levels for a product category. On the one hand, customers will be reluctant to buy below a certain price range for fear that the product will be inferior. On the other hand, they will be reluctant to exceed this range because the expected benefit of the product is not worth the price. The Van Westendorp price sensitivity meter (PSM) is a popular tool to explore the acceptable price range. It first exposes respondents to a product description or sample of the new product and then asks four direct and simple questions: At what price would you consider this item to represent a good value? At what price would you say this item is getting expensive, but you would still consider it? and two others establishing 'too expensive' and 'too cheap' price points. The best analytic approaches then focus on finding prices between the 'inexpensive' and 'expensive' price points for as many respondents as possible. Although the four questions of the PSM are meant to prevent respondents from shifting immediately into bargaining mode and lowball the answer, it has been found that as many as 20 per cent of respondents still may give inconsistent and low biased answers. Therefore, PSM is best used only as an initial exploratory step and for highly innovative products. Prices suggested by PSM results, and somewhat higher ones, can be further explored and tested with alternative methods (e.g., monadic tests or a trade-off method).[13] The PSM can be used for pricing a product but also to explore the acceptable price range for subscription models, such as determining a subscription fee.

It is fair to say that pricing new products is a difficult task. Pricing strategy must maintain a balance between covering the costs of development and production and achieving a reasonable profit while at the same time recognising the customers' price tolerance and value perceptions.[14] Difficulty in predicting both the size of the potential market and the start-up's future market share introduces several unknown factors into the *break-even analysis* and into estimating the time required to break even (the point at which the income from sale equals the invested costs, i.e., expenditures). Price sensitivity and reluctance to agree to price increases after having been granted a low price or discounts to customers also play a role. Another difficulty concerns the fact that price is often associated with quality. A low price setting thus risks being seen as inferior. Consistent with this, high price levels have been recommended for new innovative products.

**Example – Ludwick Marishane, targeting the bottom of the pyramid**

In the small towns of Limpopo, South Africa, the water supply is as unpredictable as the weather. In his funny talk from TED@Johannesburg (www.ted.com/talks/ludwick_marishane_a_bath_without_water.html; accessed 16 December 2016), young entrepreneur, Ludwick Marishane, tells his story of how he created 'DryBath', a cheap and convenient soap that does not require water. He developed the formula, performed market research, and wrote his 40-page business plan all on his cell phone. He targets both poor people and rich kids, offering cleanliness and convenience respectively.

Recognising that poor people do not buy products in bulk, he decided to package the product in innovative little sachets, easy to snap open and offering a single application at five rand per sachet (equivalent to 0.46 dollars). Although slightly more expensive (i.e., higher $/volume price than large packages), it better caters to his target customers, particularly those at the bottom of the pyramid.

### *Pricing methods*

We will discuss three basic price-setting methods: *cost-based pricing, competitor-based pricing*, and *customer- or value-based pricing*. The first approach focuses on calculating costs and then adding a profit margin, or return on investment mark-up. It is a basic, simple pricing method. It requires estimating future sales volume, which is particularly difficult for new products. The approach does not consider market conditions such as competition and demand. High cost levels translate into high list prices, whereas low cost prices make low list prices.

The other two pricing methods do account for market conditions. *Competitor-based pricing* uses competitor prices as a point of reference. Generally, either the market leader or closest alternative is used to set a price. A slightly higher or lower price will be chosen based on arguments of quality and reputation, or simply in an attempt to gain market share. *Customer-based pricing* relies mainly, but not exclusively, on customers' perceptions of the benefits of a product. It sets prices based primarily on the value to the customer, perceived or estimated. However, costs and competitive motivations are also often accounted for.

While the cost-based pricing method is commonly used to price commodities, customer-based pricing is most successful for products that have a demonstrably higher value, usually aimed at niche markets. This pricing method is also applied for products that are in short supply, or that are sold largely based on emotion.

Caterpillar, for example, is known for using value-based pricing of its construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. Their sales agents begin by referring to the price of a similar piece of equipment from a competitor and then explain that the Caterpillar brand charges extra for greater reliability, durability, and better quality of spare parts and service (e.g., $5,000, $4,000, and $1,000 respectively). If the competitor's tractor sells at, for instance, $90,000, they argue that the Caterpillar product is worth $100,000 and that their list price of $97,500 is, in fact, a good deal.[15]

Although firms may rely on a single pricing method, often a mix of methods is used.

### *Pricing strategies*

The pricing strategy for a new product should be developed to achieve the desired impact on the market while discouraging competition; it should be closely intertwined with pricing itself. Two basic strategies to achieve this are *skimming pricing* and *penetration pricing*.

*Skimming pricing* aims to skim the cream off the market by using a relatively high initial price for a product or service, and then lowering it over time in order to reach more customers. The price is often based on some competitive advantage such as holding a patent with its limited time span, or having a first-mover advantage that will decline over time. It is recommended for conditions when the nature of demand is uncertain, when the competition requires some time to develop and market a similar product and when the product is so innovative that first customers are willing to pay the price. It thus is highly applicable to entrepreneurs selling innovations. The high price will ensure margin and quality image but can make market development slow. To tap the mass market the price will have to be lowered. A skimming strategy may enable a start-up to gain a strong position in a niche market and make a good profit while avoiding high investments in promotion and production levels to cultivate and meet demand.

Skimming works well if the entrepreneur's innovation and business model require particular new capabilities incumbents do not have. This will particularly be the case if the entrepreneur has a patent or introduces, with its new product, a business model innovation. Then the market segment will be a true niche and be protected from competitors entering quickly after seeing the high margins.

*Penetration pricing* is the strategy of entering the market with a low initial price to attract customers and capture a large market share as soon as possible. High price elasticity (i.e., demand sensitive to price difference) is probably the most important reason to adopt a penetration strategy. If demand is elastic (i.e., price sensitive) over the entire demand spectrum, penetration is preferred over skimming. Penetration pricing discourages competitors from entering the market. Low price implies low margins, which should defer competitor interest. However, one may also use the penetration strategy to develop the market at large. Anticipating serious market development and aiming for future economies of scale, the introduction price then can be set much lower than prototype cost levels in anticipation of serious cost reductions once sales volume increases (due to scale and learning effects). However, this approach works only when the new product caters to the needs of the mass market and it should be designed accordingly.

Penetration pricing may also be dictated by the type of product or service of the start-up. Network products are offerings for which the customer value depends on and increase with the number of users (e.g., you can only enjoy a phone if your friends and other people also have phones). For these products it is critical to use penetration pricing and not use skimming. Skimming would prevent growth of customer value by preventing rather than stimulating adoption and diffusion of the product in the market. Sometimes price bundling can be used to help network products get established. The bundle can take the form of a cheaply priced starter kit that can help the customer commit to the standard of the product of the entrepreneur and ensures that subsequent purchases of the customer will cohere with this standard.

### Doing the right thing – Anticipating competitive moves

Prices of alternatives in the marketplace can offer an important reference for price setting and developing your business model/case. However it is important to be aware that prices are not fixed but flexible. In fact a competitor can reduce the price over night. Moreover, if it concerns a large established firm it may keep prices low for quite some time to simply push you out of the market. Particularly if the established firm is dependent on the market that you enter, you can be sure that it will put up a fight. An aggressive price decrease should at least be expected from them. Scenarios and role plays anticipating this kind of competitor response and how your firm can react should be considered. This type of preparation is particularly relevant to your pricing strategy, as you cannot change it easily once you have begun implementing it.

#### *Price components and structure*

Many factors make up the components of price, including (1) development costs, (2) production costs, (3) marketing and sales costs, (4) distribution costs, and (5) the margin required or desired. However, (6) discounts and (7) service/warranty costs should also be taken into account. Forgetting some of these cost factors will hurt margins significantly because price levels are often difficult to increase once they have been established.

When engaging in customer pricing, it is important to consider the *total cost of ownership of the product*. This refers to the cost of operating your product rather than just the price. If your innovation reduces the total cost of ownership (compared to the current solution the customer has in place), this can be highlighted and used to convince the customer of a seemingly higher initial purchase price. However, a customer will only switch if the decision maker believes the claims and is sensitive to the issue raised. For example, LED lights have a much higher life expectancy than traditional lamps or energy-saving SL lamps. Manufacturers use this to justify a high price for their new LED lamps in an attempt to prevent price erosion. However, as suppliers used similar claims for previous innovations (e.g., halogen headlights for cars) and these have proved largely false, customers were sceptical. Also the fact that gains might be small or in the far future, played a role.

In arriving at a suitable price, the mark-ups along the value chain must be factored in too. It is one thing to cover product costs, but the costs and margins added by distributors (or value- added resellers) ultimately determine the final price that customers will need to pay. The entrepreneur thus should account for the overall price structure.

Finally, entrepreneurs should be careful when offering discounts early in the process of gaining customer interest.[16] Faced with pressure to make early sales and generate cash flow, many start-ups tend to offer serious price discounts in order to close initial deals. It may, however, establish unsustainable precedents. It is better to offer perks such as free shipping or a free trial period to reduce customer cost.

## 8.6 Promotion: creating awareness and communicating with a limited budget

### *The communication process and promotion mix*

Entrepreneurs face a tremendous challenge: they need to create awareness in the market for their *reputationless* new product application and company. The start-up needs to inform prospects and thus help them build their knowledge about its product and business. The higher the level and accessibility of this knowledge, the higher their level of awareness.

*Positive associations* are important. They concern positive thoughts related to particular features or attributes of a product, brand or organisation. Positive associations make for a positive attitude that gives way to liking and desire. It is a requirement for moving prospects towards considering and buying your product or service. Communication models can help the entrepreneur understand and manage this process of creating customer knowledge and positive attitude resulting in buyer action. A brand or company name will act as an anchor for customers to store information about your organisation and product in their minds.

#### *Communication*

*Communication* refers to a process of transfer of information between two parties. It typically involves a sender, a message, and a recipient. A communication process is complete once the receiver has understood the message of the sender. This benefits from the sender, that is, the entrepreneur, adopting the perspective of the receiver, that is, its prospective customer. However, the ultimate goal of a start-up's business communications is to sell its new product. Drawing attention to and informing about the product are instrumental to this higher goal. The start-up's communication should interest, inform, and ultimately persuade.

Drawing on these principles, advertisers have developed a persuasion-process model labelled AIDA: attention, interest, desire, and action (see Figure 8.1). AIDA describes a common list of events that may occur sequentially when potential customers engage with communication, such as an advertisement or meeting with a salesperson. *Attention* refers to the need to attract the attention of the prospective customer and thus for creating awareness. *Interest* involves raising customer interest by focusing on and demonstrating product benefits instead of focusing on features, as is often the case in traditional advertising of many high-tech products. *Desire* concerns persuading customers that they want and desire the new product or service and that it will satisfy their needs. They

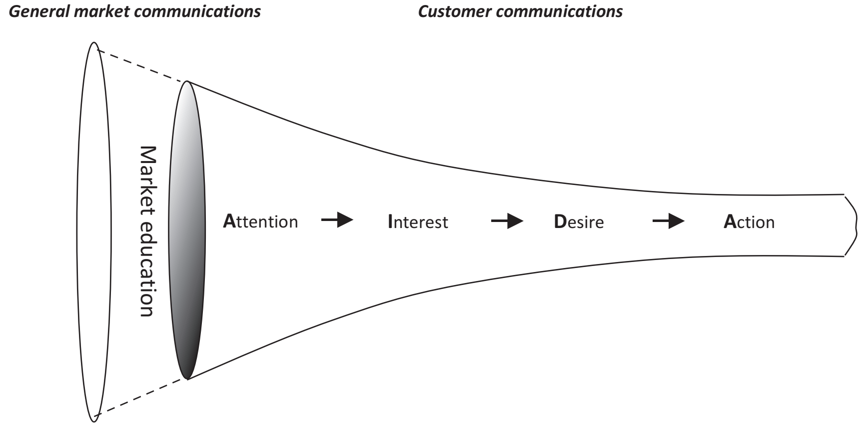


*Figure 8.1* Extended AIDA communication model

recognise its competitive advantage (USPs) and think it superior to alternatives in the market. Finally, *action* is persuading lead customers to act, and thus, to try and buy the new product.

The model gives the entrepreneur a framework to develop an effective communications programme. Moving from left to right, one moves closer to the positive attitude of the prospect for the new product and the customer's action to buy. In this process (i.e., funnel), some percentage of prospects will be lost. By monitoring the process and the percentages of customers lost at each stage, a start-up can identify and then remedy bottlenecks with its marketing actions.

The ultimate aim is, of course, that all prospects of the target segment know the start-up's product and thus are aware. Preferably they also all like the product and thus have positive associations because this increases the chance that they will also consider and ultimately try and buy the innovation.

We extend the AIDA model to better address the communication challenge of radical new applications. Radical new products are unfamiliar and may require substantial market education before one can really grow awareness. A radical new technology will be unfamiliar to customers and the new application may require a new product category to get established. This requires knowledge development to shape the relevant provider and customer cognitions. It involves presentations to and discussions with experts, for instance, at conferences, but also engaging in blogs and seeking news coverage to inform the public of the new option. At this early stage, the communication is aimed at creating interest of opinion leaders and leading customers. The aim is to extend their knowledge and develop their cognitions of the new option. Through the news and stories information of the new option will diffuse, and shared conceptualisations, such as regarding the new product category, are formed.[17]

### *Communication mix*

Whether the entrepreneur is focusing on a business to business (B2B) market or consumer market (B2C) will make a big difference. In B2B the demand is often much more concentrated than in B2C. Direct, consultative selling approaches prevail in B2B marketing communication. In contrast, in B2C communications are often more indirect, stressing brand value next to functional benefits.[18]

In deciding how to best promote the new product, the start-up must decide which communication instruments to use. The promotion mix includes advertising, personal selling, sales promotion, public relations, and online/social media. The decision must consider the start-up's objectives, but also the merits and costs of the different channels. Some instruments can reach some customer groups better than others; some are very focused and personal, while others transmit broadly and impersonally. We briefly define and discuss each instrument:

- *Advertising*. This concerns any paid form of non-personal presentation and promotion of a new product or idea by an identified source or sponsor. It includes media such as print ads, radio, and television, but also brochures and catalogues, direct mail, and websites.
- *Personal selling*. This involves person-to-person presentation of a new product or idea aimed at introducing one or more prospects to or stimulating them to buy your new product or service. It includes, for instance, sales presentations, telemarketing, and incentive programmes for intermediaries. Because it is personal it may be easy to adapt the message to particular context and customer response (so called adaptive selling).
- *Sales promotion*. Incentives designed to stimulate the purchase or sale of a product. This entails, for example, product samples, rebates, trade shows, and demonstrations involving reference customers.
- *Public relations*. This is essentially free advertising or word of mouth. It varies from newspaper and magazine coverage, to television and radio presentations, to positive references in speeches.
- *Online/social media*. This refers to exposure and positive referral in the entrepreneur's social network via, for instance, LinkedIn (business oriented), Facebook (personal dimension), blogs (e.g., Blogger), YouTube (a website for sharing videos) and Twitter. Because these networks are voluntary and social, the communications and information provided should not be obtrusive. An important channel online is, of course, the start-up's own website. It can offer potential customers a wealth of information but can also be used by the entrepreneurial team to analyse who is showing interest. If linked to a store function it can also serve to make sales.

Over the past few years the variety of communicational and promotional tools has increased. Conventional media have been complemented and partly replaced by interactive media channels. As a result, it is easier to communicate with your customers and other stakeholders. However, the increased variety also means that media decisions have become more complex. Due to the great many channels it has become easier to reach target customers, but paradoxically often more difficult to access, influence, and persuade them.[19]

The combination of instruments you as entrepreneur select to use, is called the *communication mix*. As the word 'mix' suggests, the instruments need be integrated for achieving a maximum effect. This benefits from using a common theme across messages and different media. To manage the effect of your different communication messages and consistency for customers it is useful to map the *customer journey* and its touch points. Touch points are those instances where the customer interacts with your start-up organisation and thus is exposed to its communications. This can be a message in the media, but also a visit of the salesperson, or a brochure or website. The idea is that you track this journey in an attempt to control and manage the experience. This requires aligning the different communications.

It is important to note that each instrument has its own characteristics. Some instruments are more useful for creating awareness (e.g., advertising, PR, and Internet), whereas others are better for informing customers in detail (e.g., technical brochure, personal selling and demonstration), creating affect (e.g., a blog or vlog from an influencer, or reference for a first customer), or generating purchases (e.g., one-year free maintenance or service, free trial period or discount).

During the customer discovery and validation stages, the firm will work with selected customers. Therefore, personal approaches of communications will be most useful because this uses high quality, two-way information exchange. Once the target market and product configuration have been established, instruments with a wider reach can be considered and used.

### *The challenge of establishing brand presence*

A strong brand presence is a significant competitive advantage in markets where customers have many choices. A *brand* refers to the personality that identifies a product, service, or company and generally includes a brand name and a sign or symbol, or combination thereof. The psychological aspect refers to the brand image. It is a symbolic construct created within the minds of people, consisting of all the information and expectations associated with the brand and its product. In B2B the brand generally is more linked with the organisation (corporate brand), whereas in B2C the focus generally is on the product (product brand). A brand acts as a point of recognition and affinity, two things a start-up typically lacks, and thus should be created first. This explains why branding relates more to the customer creation and company building stages of customer development than to discovery and validation.

Brand image refers to perceptions about a brand as reflected by the brand associations held in customers' memory. These brand associations contain the meaning of the brand. The favourability, strength, and uniqueness of brand associations are the dimensions distinguishing brand knowledge that play an important role in particularly high-involvement decision setting.[20] An entrepreneur thus should try and create positive and unique associations because these generate positive emotions and affect. By fostering the positive and preventing negative associations, a positive overall attitude is stimulated, which is known to be the driver of preference and buying intention. Therefore, the aim is to create a positive and strong brand attitude and image.

A brand will over time become a competitive advantage for the organisation. It will complement the functional benefits of the product and facilitate further communications with customers through brand identification and community.

**Example – Tesla: building positive brand associations**

At the start, electric cars were not associated with speed and endurance. Battery life was one of the problems. To create positive associations of electric driving and the Tesla brand in particular, the firm placed its electric engine and batteries in a Lotus Elise sports car. They then organised a roadshow to engage the public and give everyone the opportunity to see and experience the roadster. Although the car was extremely expensive to purchase, it helped demonstrate that electric power and speedy cars are a happy marriage, creating positive brand associations.

The positive and unique associations a start-up wants can be derived from the *unique selling points* (USPs) of its technology and application. Once these USPs have been validated with early customers, they can act as a 'reason to believe' in its communication message to subsequent prospects. Providing evidence that the new product application will deliver as promised and has a higher value than the alternatives of the competition, will help to build such a convincing brand image.

Selecting a brand name that resonates with the start-up's prospective customers and that also triggers the right associations is important. Pre-testing the name with customers can help to prevent confusion and unnecessary costs of making changes later. An example is Dutch start-up Inmotio. The name refers to the nature of the product, which tracks and traces athletes during a game. Further, the firm uses the English translation to make the name easier to transfer internationally. Face validity supported it and some basic tests were used to validate it. Fitbit is another example of a well-chosen name. Finally, if you plan to expand abroad, make sure your brand name can travel.

### *Useful promotion and social media strategies for start-ups*

Promotion budgets can be fixed, they can be a percentage of turnover or they can be set with a particular communication goal in mind. Start-ups, however, often have limited resources and small promotion budgets. Only by being extremely creative can maximum promotional effect be accomplished. Here are some suggestions.

(1) *Take advantage of publicity.* For a start-up, any cheap opportunity to promote its new product is welcome. So actively planning for and stimulating free publicity is important. If a start-up's new product, goal or mission is newsworthy, entrepreneurs can obtain publicity by contacting a newspaper, magazine or online report to share their story. To take advantage of free publicity, start-ups need to develop a press kit that includes background articles on the firm, press releases, ideas for stories, and sample articles that have already been written. Evidence of the effectiveness of the new product will also be welcome. This will increase the news organisation's interest.

**Example – Free publicity**

PreventionCompass, a start-up, benefited substantially from coverage in *The Economist.* [21] The article appeared in its 'Science and Technology' section. The message was that prevention is an important way to reduce increases in healthcare costs. Here are two excerpts from the article, which clearly show the excellent PR the start-up received:

> [T]here may be a solution in the form of a personalized health check-up called PreventionCompass. This system has been developed by the Institute for Prevention and Early Diagnostics (NIPED), a firm based in Amsterdam. It requires the customer to answer a detailed questionnaire about his way of life and to undergo a series of tests. It draws its conclusions [regarding risk factors for certain diseases e.g. cancer, cardiovascular disease, diabetes and kidney disease] by running the results through a 'knowledge system' – a database that pools expertise from many sources.
>
> This year two large insurance companies, which provide corporate healthcare, income and disability insurance to employees are offering to lower the premiums of customers who sign up to PreventionCompass. Next year the plan is to extend the scheme more widely, by recruiting Dutch GPs [general practitioners] to offer it to people from lower income groups who do not have such private health insurance. The message, then, is prevention, not cure. And it is a message that needs to be heeded across the world as poor countries grow wealthier and adopt the eating habits and sedentary lives of the rich.

(2) *Use the power of the Internet.* The Internet offers exciting ways to generate free publicity. Viral marketing refers to any marketing technique that induces websites or users to pass on a marketing message to other sites or users, creating a potentially exponential growth in the message's visibility and effect. It requires interaction between customers (and users) of a product or service to amplify the original marketing message. Positive buzz and potential goodwill for your new

product, start-up or cause are the objective. Viral marketing works because prospective customers trust individuals more than organisations that have vested interests in promoting their products and/or services.

Chat rooms and blogs are also popular media for electronic marketing campaigns. As an entrepreneur seeking to draw attention, it is important to seek out the authors or influencers/thought leaders with the right blogs to create the right impact. The closer the match between the blog's readership and the product, the higher the impact. The nature of a blog guarantees the continuous attention of the target audience. Consistent with this, the entrepreneur or customer-building team should also participate continuously in the blog or in discussions of related topics in chat rooms, but also offline!

Several simple suggestions can help gain the maximum impact for your marketing efforts on the Internet (and social media) and to prevent basic mistakes:[22]

- *Keep your message simple.* Simple messages spread across social networks more easily.
- *Say what is new.* A message must be relevant and newsworthy for people for them to forward it to others, so make it exciting – even theatrical – but accurate.
- *Do not make claims you cannot support.* Making false claims will kill buzz or, worse, will trigger negative responses.
- *Refrain from directly advertising your product or firm.* Clear advertisements will be seen as a breach of trust and generate negative responses. Social media is not commercial television!
- *Ensure continuity.* Social media thrives on continued exchange of information. Rather than fitting everything in one message, use different issues and points of view to create new content. This will generate interest and create followers.

AdWords and Google analytics are powerful tools to create awareness and sales for a website. AdWords is an inexpensive way to target highly fragmented markets. Pay-per-click for selected key words (customer search) makes it much cheaper than traditional media; even if effectiveness is low it may still prove cost effective. The trick is to identify key words searched enough by browsing customers who are your prospects.

**Doing it right – Internet as promotion and business model option**

The Internet can be used to draw attention to your start-up and create awareness for your new product, but it can also be used for *crowd funding*. Very often, young entrepreneurs use online marketing to leverage their network of friends. The following example shows an email that I received from a start-up that illustrates the idea well:

Dear Ed,

We would like to let you know about our start-up. We are really excited and passionate about it. But, we will need your support!

Driven by our passion for quality healthy food, our love of exploring new tastes and our will to support small artisan producers that insist on quality, we founded Maryo Artisan Products. We aim to make Maryo a company that will form the single link between artisan producers of Greece and end-consumers in Europe. Our first product is a unique, very low acidity Extra Virgin Olive Oil produced in Agarathos monastery in Crete. Our idea was to take a top quality olive oil that until now was found only in perfume size super-expensive bottles and make it an every-day healthy habit. This is our idea in a nutshell!

But we need some support. As we all know, the first people that will trust a new company and try their products are those that have some connection with the founders and thus some trust. This is why we turn to our friends, our professors, our colleagues …

So, join our journey, support us by placing your order in our crowd funding page: http://igg.me/at/maryo-artisan-products

… Another great way to help us will be to share our story within your circle!

Thank you so much!

(3) *Use trade fairs.* Participating in or visiting trade fairs is an excellent way to expand your network and increase the chance of finding prospects. Trade fairs attract people who are interested in a particular topic. Trade fair visitors tend to be curious and innovative. Therefore, fairs are the ideal situation for customer discovery. Because fairs offer the opportunity of personal contact and interaction, you are in an excellent position to explain your product and get feedback. So, trade fairs also help make a first or second step towards customer validation.

(4) *Use pre-announcement.* [23] Pre-announcement is a tactic particularly to promote new products using new technology. It makes prospective customers aware of the new development and can potentially persuade them to delay their purchasing a product until the new application is ready. Although generally used by established firms, it also is a useful approach for start-ups. However, pre-announcement only makes sense if the start-up can also deliver. In this case, it can help create customer awareness for the new product and educate the market.

There are also potential negative effects of pre-announcement. Not only will prospective customers be alerted to the new product, but so will the competition, offering them extra time to get prepared and react. Therefore, to protect their pioneering advantage many start-ups do not pre-announce. The decision is, however, best made based on actual competitive advantage and need for the market to be educated about the new technology.

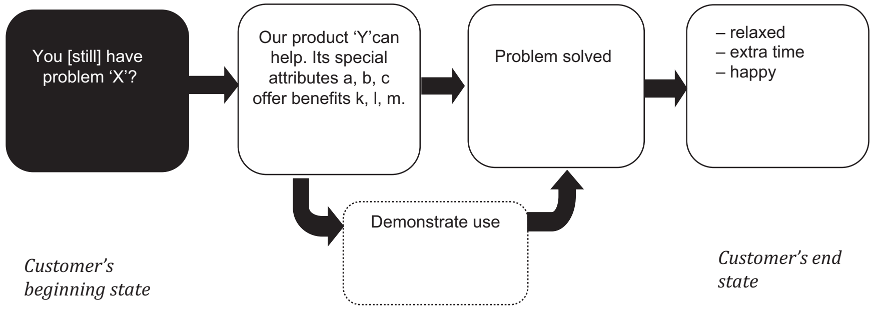


*Figure 8.2* Customer dissatisfaction and advertising the benefits of the new product

### *Create dissatisfaction*

Although innovative customers may be actively searching for new and better solutions, customer dissatisfaction is a strong motivator to try something new or switch providers. Dissatisfied customers are motivated to search and thus are open to new alternatives. In contrast, satisfied customers will generally not be interested unless the entrepreneur can create a new ideal situation and a desire in these customers to attain this new ideal. This is why many communications we see around us appeal to a particular problem and some kind of user frustration. The message is that the problem shown can be solved using the entrepreneur's new product or service, that is, innovation.

If the prospective customers recognise the problem and frustrations involved, they will be more interested and open to reconsider their current solution and provider. By presenting the new product in the right use context, this communication builds customer knowledge and the right link in customers' minds. By simultaneously highlighting the innovation's unique product features and related benefits this knowledge can be elaborated. The communication approach is illustrated in Figure 8.2. Drawing on means-end psychological principles, this approach has been proven to be very powerful.

## 8.7 Place: obtaining market access

### *Gaining access to customers*

*Place* refers to distribution and channel decisions, and therefore all the available options to deliver the new product to your target audience. It involves three decisions: (1) where customers should be able to buy the product (channel decisions); (2) how to ship it to the customer (physical distribution); and (3) how to manage the relationships with distribution partners (trade marketing). Certain channels may align better with the needs of customer groups than other channels and thus may be preferred. Moreover, often firms use multiple channels to reach their customers. They offer customers a choice of how and where to obtain the product, and thus offer convenience. However, the entrepreneur is often confronted with channels that are occupied by competitors and thus the need to creatively look for alternatives to reach the customer.

Short and long *channels of distribution* can be distinguished. In the case of short channels, no intermediate partners exist between a firm and its customer, while in a long channel, multiple stages exist – for instance, between wholesale and retail, there are several intermediaries. Under influence of the Internet and better options for home delivery, the trend is to reduce the number of layers of distribution and rely more on direct channels. It is also fundamental to many start-ups' business model innovation.

The Internet is a popular way for start-ups to gain distribution access. The Internet is a low-cost option because no expensive presentation and showroom are needed, and shipping only occurs when an order and payment have been received. As such it has given an impulse to entrepreneurial activity and new business models. It is a particularly attractive option if access to distribution is difficult to obtain due to a dominant competitor controlling the (alternative) channel(s). The Internet option may also be combined with, for instance, operating a direct sales force that directly approaches customers. Integrating the two options can help to accomplish synergy. Direct sales will benefit profit margin and offer direct customer contact and data. It allows for two-way communications.

Apart from selling through your own website many start-ups use platforms to access the market and thus find customers (e.g., eBay, Amazon, Alibaba). Pros and cons should be weighed carefully, focusing on which competitive advantage the entrepreneur wants to build. It may affect the sustainability of the start-up's business model.

Sometimes, complex products require special assistance or installation (e.g., an element in a production system such as a labelling machine). Having high-quality distributors or so-called *value-added resellers* often is a key success factor for selling a product or service. If your product really benefits from careful advice and implementation assistance, it is important to find good and, most of all, reliable partners.

Finally, apart from the most obvious partners, you may particularly consider partners that service the same customers but sell complementary rather than substitute products. For instance, a small student-driven start-up, Senz (www.senz.com/en/collections/lookbook-globetrotter/; accessed 16 December 2016), which invented a new storm umbrella, teamed up with Mexx, a chain of clothing stores rather than luggage stores to penetrate the European market. At the start, the umbrella was only offered in the 50 largest Mexx stores. Within nine days, stocks were sold out. Another option is to look for a large competitor and ride piggyback. It will only work if your products offer something extra over the competitor's current product line.

#### *Motivations of distributors to carry the start-up's brand*

Just like customers, distributors buy for a reason. They have their own reasons to add your product to their product line and to want to represent your start-up. It is good to keep this in mind when approaching them. Motivations for distributors include:

1. *Customers ask for the product*. If the new product offers clear benefits that address latent needs, and if customers are aware of the product and start-up's existence, they may approach distributors. In the case of a start-up, serious pull marketing (e.g., via the Internet or free publicity) must have been developed to create such demand pull. However, distributors may also anticipate such a development and proactively adopt the new product.
2. *More favourable margin*. If your product offers much the same value as previous products but offers a much better margin, this may also persuade the distributor to switch.
3. *An opportunity to reduce the current product range*. If, by stocking your product, the distributor can prune its product line, the product is attractive to stock. For instance, if you offer a new industrial or professional glue or kit that can be used under wet and dry conditions and can stand temperatures over 100 degrees Celsius, the distributor needs to carry fewer items to satisfy the same demand and can use remaining shelf space to sell other products.
4. *Enhanced positioning*. Some products and brands offer a distributor the chance to enhance its positioning. For instance, if adoption of the start-up's product helps a distributor to enhance its image of quality or product leadership, this may be an important motivation for the distributor to adopt and stock the start-up's new product. For example, if your start-up has developed a better type of solar cell or coloured, designer-like photovoltaic (PV) panels to place on the facade of buildings, any distributor working at the high end of the market may be interested, as it will help enhance their positioning.

By understanding the motivations of distributors, a start-up can better prepare its sales pitch and negotiate a deal.

#### *The quality of distribution*

For any start-up, obtaining access to customers in the market is important. The best channels are probably those that your target customers are using most frequently. However, these may be blocked by competitors. Consequently, you may have to look elsewhere. By aligning your strategy with the available channel, you may be able to create access and a niche position.

Generally, more and less important distribution channels can be distinguished. Analysing product flows by channel can offer important insight into which channel is important for which product and to reach which customer group. However, not only the static numbers but also changes that are taking place are important. For instance, over the past few years, a significant shift towards buying on the Internet has occurred, suggesting that the importance of physical retail stores is decreasing.

Considering alternative channels is also important. While supermarkets are struggling to keep customers interested, and are exploring Internet sales, some new ventures have adopted and developed alternative channels. Today, customers like convenience and fresh products. As a result, we have seen a surge in vending machines selling fresh products (e.g., vegetables, fruit, milk, and bread) in many countries, and pickup points have grown in many markets as an alternative form of distribution.

Some important indicators of distribution quality you can consider are (1) market coverage, and (2) share in turnover in the product category of your product. This information will help you evaluate options.

### Doing the right thing – Avoid channel conflict

Although a start-up's main concern will be to obtain distribution and rapid sales, the search for distribution access and cooperation may result in operating different channels simultaneously. As a result, channel conflicts may emerge. Channel conflict is, for example, when you have attracted a distributor but you are also selling to customers directly. It is important to develop guidelines concerning how to divide the market to clarify which customers are approached and served by whom and how. You should also clarify how to act when customers get mixed up between the different channels – who should serve and profit?

Distributors may ask for an exclusive deal. This may seem a good idea, particularly if the distributor has exactly the type of customers you are looking for. However, it is important to understand the potential danger involved. Sometimes, this request can be a strategic move from the distributor aimed at protecting its existing business and business relations. By signing an exclusive deal, the start-up limits its strategic options and puts its faith in the hands of the partner. The partner can then make or break the start-up. If the partner minimises rather than maximises the efforts for pushing the start-up's products, legal action may be required but that is difficult. Although the start-up may try to get out of the contract, its limited size, resources, and time may prove a serious barrier to setting things right. As a result, the start-up may have no other option but to look elsewhere for developing its business.

Thus, start-ups should be careful when signing exclusive deals. Often, joining forces not with the establishment but rather with a new channel or with a channel that is under pressure is more promising.

Next to the option of *exclusive* distribution, both *selective* and *intensive distribution strategies* exist. While exclusive distribution aims for a special, high-quality presentation of a product, selective distribution relies on a confined set of distributors to present a brand. It is a common format, for instance, in installation services and in selling computer software. These distributors have been selected and certified to guarantee their quality. A third option is intensive distribution. In this case, the start-up aims to achieve broad market presence and makes its product or service widely available to all customers when and where they want it. In particular, convenience products are distributed in this way. Providers of capital goods generally rely on the other two options.

Start-ups generally are happy with any form of distribution. However, thinking carefully about different options can prevent problems later.

**Summary**

- A simple plan can help guide marketing and sales efforts. The plan can be updated weekly and improved over time in response to opportunities. Learning is a key element.
- The content of the plan will depend on the stage of the customer development process and is developed and managed by the customer development team, who should use metrics to show progress and act accountable.
- The plan should focus on building customer value, market presence, and customer relationships. The traditional marketing instruments are tools that can be used to accomplish these marketing/sales objectives. Product and price are closely related to creating customer value. Promotion and place refer to building market presence.
- First, assumptions about product, price, promotion, and place decisions should be validated. Second, a consistent programme should be developed that can be rolled out to the market at large later.
- Creativity, cooperating with partners, and using the latest online marketing options can help obtain maximum marketing exposure at minimum expense.

## Notes

1 Allen (2010).
2 Customer lifetime value (CLV) refers to the importance of a customer based on sales and profit potential. A small example illustrates this point: A loyal customer may buy monthly and stay on average 3 years, whereas an occasional one may buy only twice a year and stay 1.5 years. If we also know that on average the ticket price of the loyal customer is 1.5 times higher we can compute the CLV and compare.
3 See, for example, DiBenedetto (1999). The three components are comparable to the three elements of customer equity used by Rust *et al*. (2000).
4 Colm et al. (2020), p.105.

5 Hartmann et al. (2018).
6 Webb et al. (2011).
7 McCarthy (1960)
8 Dev and Schultz (2005).
9 Lafley (2004), p. 51.
10 See, for example, Srinivasan et al. (2012).
11 Gaeth et al. (1991); Woodruff (1997).
12 See www.yahoo.com/news/gopro-history-success-230730979.html?ref=gs (accessed 16 December 2016) and en.wikipedia.org/wiki/GoPro#HERO_cameras (accessed 16 December 2016).
13 Lyon (2002).
14 Allen (2010).
15 Mullins et al. (2005).
16 Fogel et al. (2012).
17 Rosa and Spanjol (2005).
18 McDowell Mudambi at al. (1997).
19 Tafesse and Kitchen (2017).
20 Keller (1993).
21 The Economist (2007).
22 Rosen (2002).
23 Allen (2010).

Chapter 9

# The role of sales in customer development

**Key issues**

- Explain the sales learning curve.
- Understand the knowledge brokering function of sales, and the importance of connecting sales to the engineers developing the new product.
- Present the solution selling process and its relationship with customer development.
- Discuss the development of a sales roadmap and message.
- Stress the importance of managing customer expectations.

## 9.1 The sales learning curve

In Chapter 8, we introduced the one-page marketing and sales plan. We explained that the plan should guide the start-up's customer development process and detail marketing goals and actions. It should be developed and managed by the customer development team.

One of the three core dimensions of the plan is developing customer relationships. It is an important new business development task and will require a major sales effort.

> What is needed … are entrepreneurial sales skills; the ability to change presentations, customers and products on a daily basis, the ability to calmly process the news that the product features, schedules and functions have changed yet again. The ability to listen to customer objections and understand whether they are issues about the product, the presentation, the pricing, or something else. There is no fixed price list and product presentation that will last more than a week. What we need early on in sales is an individual comfortable with chaos and uncertainty who can close an order and not worry about building an organization. The goal of our first salesperson is to *validate the business model by developing a sales roadmap*, closing orders, and doing this without having a real product in

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> hand. This may or may not be someone who can manage and build a sales department later.[1]

This early selling involves serious sales learning, which unfolds through the experimentation with different market segments and prototypes. Based on lead customers' valuable feedback, as well as the customer development team's discussions and decisions, the organisation will modify its concept, prototype, and /or MVP to ensure a valuable customer solution. In addition, the processes for selling the product should be discussed, validated, and improved. It should help to shape the start-up's sales message based on a description of the new product's unique selling points, that is, USPs, and develop the sales roadmap, which identifies the intermediate steps and goals towards market launch and a repetitive sales model.

The first task is to establish whether there is a business based on potential customer demand. Following the positive results of the problem and solution interviews, sales should find additional customers. This process of customer validation takes time. For each weakness of the product, an argument needs to be developed to prevent it from being a deal-breaker. Many problems are discovered sequentially, revealing themselves only after some preceding issue has been discovered and addressed.[2]

The next step is to engage in customer development. This requires detailing the value proposition and optimising the sales message and roadmap to a point where the outcome can be predicted, and success repeated. Until the start-up has validated the approach and business model, marketing expenditures and size of the sales force – like all costs – should remain low. The moment that sales accelerate is the time to finalise the sales roadmap. Then, the young organisation can expand and build a sales force. Until that time, however, everything must remain lean.

We continue below with a discussion of the role of sales in our high-tech entrepreneurial setting, before discussing specific activities of sales for the one-page marketing and sales plan.

## 9.2 Sales as the motivated knowledge broker for innovation

Salespeople hold an important role as broker. Understanding this role helps to understand the challenges involved in the customer validation and customer creation stages. As a liaison between outside customers and trends in the market environment on the one hand, and colleagues inside the firm on the other hand, salespeople can connect and recombine knowledge about, for instance, the new product's development process with knowledge about customer product experiences they hear in the marketplace.[3] The more a salesperson connects with a multitude of colleagues internally and explores the information that has been collected from outside, the richer the ideas and scenarios that will be developed which, if shared internally, will benefit the firm's capacity to effectively adapt its product application. Salespeople who are aware of this important role will be best able to contribute to their firm's short- and long-term goals (e.g., selling new products and establishing a strong market position).

Getting to know the prospects can help salespeople understand the market, conceptualise customer problems worth solving, and better market this new product too. Effectively transferring information from these potential customers to the firm's new product developers is important for generating ideas around further product development, as well as mustering internal support for altering the existing product concept. By involving lead customers and salespeople in the new product development process, this knowledge transfer is stimulated. Through lead customer engagement, relations develop that foster trust and stimulate knowledge exchange that help specify the minimal viable product (MVP).

The customer development team, and in particular the salesperson, should help identify and implement the appropriate *governance mechanisms* for co-creation with the lead customers. Governance mechanisms refer to formal or informal rules consciously designed to manage these relationships. They are particularly important in business-to-business settings, where clients may be worried about loss of proprietary knowledge to competitors (see 'Doing it right' text box).

### Doing it right – Creating the right governance mechanisms for engaging lead customers

The mixed success of co-creating a solution with customers can be explained by lack of attention to governance mechanisms.[4] Mutual commitment and balance of power are particularly critical. Without these, solution efforts often fail, get delayed, or are limited to their initial success.

Important *governance mechanisms* are:

- Temporary asset co-location. This involves entrepreneur and customer physically sharing proprietary assets through temporary agreements during the experimentation phase. The joint allocation of means stimulates collaboration while reducing opportunism.
- Creation of a closed-network community with harmonised norms. This helps relieve the tension between the opportunities spurred by solutions and the threats from competitors that share the same supplier. It can help overcome other security risks or privacy concerns.
- Creation of artifacts. Co-developed prototypes, joint formats, and trained employees, for example, facilitate information exchange and can help establish shared meaning. This offers a joint frame of reference and helps the parties share relevant, tacit knowledge regarding the solution.

- Rights allocation agreements. Specific contractual clauses that clarify ownership rights on the solution outcome can help reduce exploitation risk. This will prevent any party feeling exploited by the other.
- And, finally, liaison champions. Appointing a manager (potentially for each solution actor) with enough agency to balance proactivity and adaption requirements during the solution development helps to cope with unforeseen contingencies and helps the effort to keep moving forward. On the start-up's side the salesperson or another person of the customer development or entrepreneurial team should assume this role.

Sales are a start-up's lifeline, next to venture capitalist confidence and support. However, selling will be difficult as long as the product validation has not yet succeeded and the new product's quality remains under par. Nevertheless, achieving actual sales for the product will be important to sustain a certain level of cash flow for the organisation.

The salesperson needs to allocate attention and time to persuading customers to buy the start-up's new product, even if it only exists on paper, as a concept. Therefore, it is key that salespeople are continuously motivated and get all possible support from their colleagues, including the entrepreneur him- or herself. A salesperson needs to believe in the new product to be able to sell it.

To understand the tensions of the salesperson a job-demands sources perspective is useful.[5] Helping the new product development team create product-market fit and interesting customers of the target segment represent important challenges and thus *job demands*. To deal with these demands, the salesperson will need *job resources*. These resources may reside at the organisational, group, or personal level and will help motivate the person. An excellent relationship with the product development team, for example, can help the salesperson cope with the demands of selling a really new product. Trust of the R&D leader and entrepreneur also are important organisational resources that a salesperson can rely on when facing the challenge of selling the new product or concept. At the group level, a supportive customer development team is an important motivating resource. At the personal level, a wide array of individual variables may function as resources, including time management skills, learning capacity, adaptive ability, and self-efficacy, but also prior experience with solution selling or new business development. Efficacious people, for example, will feel in control and thus be more convincing. Experienced new business developers will be prepared for the resistance they will face and know how to handle it, whereas solution sellers will be able to take a customer perspective and thus gain prospects' trust more quickly. Joint technical and commercial knowledge is also useful. Salespeople with bilateral knowledge will be best able to integrate market and technical information. They can navigate effectively between the customers'

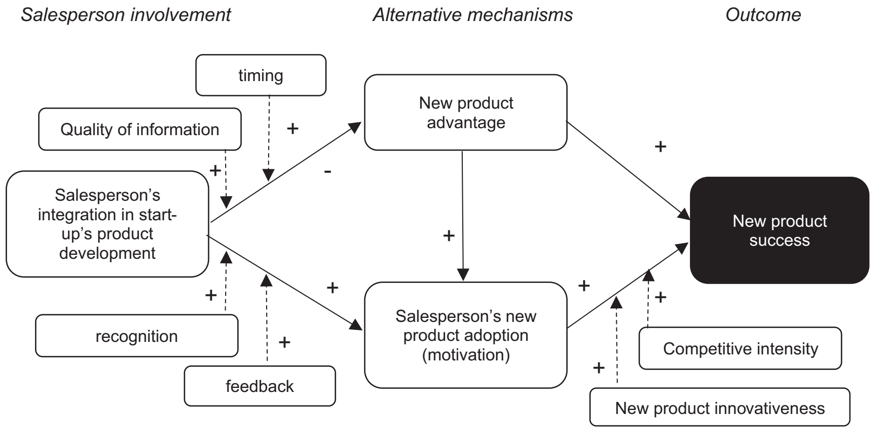


*Figure 9.1* Salesperson involvement in new product development process (based on Kuester et al. 2017)

needs and problems and new product development staffs' technical perspective. The entrepreneur and customer development team may carefully review the salesperson's situation to evaluate whether job-demands and -resources are favourably matched.

Connecting the salesperson(s) of your start-up with the organisation's engineering team is most critical to the young firm's success. Two mechanisms are important (see Figure 9.1).[6] First, by relying on the knowledge of the salesperson about customer needs and feedback, the team of engineers will be able to identify and pack more added value in the start-up's innovation, which will enhance the product's level of competitive advantage in the marketplace. Second, high sales integration with the engineering team will create emotional involvement and commitment of the salesperson for selling the new product. The salesperson will develop a positive attitude towards the new product, adopt it more confidently and, as a result, will be more motivated and work harder to persuade venturous customers to try and purchase it. Both these mechanisms increase the chance of the new product being accepted by the market and becoming a success.

Several factors moderate these two mechanisms and are potential levers for the customer development team to ensure an excellent involvement of the salesperson in the development of the start-up's innovation process. First, the relationship between salesperson integration and new product advantage is contingent on the quality of the knowledge transferred by the salesperson. If the market insights provided are valuable and directly useful for the development of the start-up's innovation by the team of engineers, the effect of salesperson integration on the innovation's product advantage will increase. The same is true for early versus late involvement of sales in the process (timing). Studies show that many important design decisions are made early in the engineering process. If these decisions are solely made by engineering, customer and market requirements are often not well accounted for. This impairs the success of many new products. Consistent with this, early sales involvement has been found to be worthwhile; it prevents mistakes and thus seriously enhances the relationship between salesperson integrations and the level of product advantage achieved. Finally, recognition of the salesperson by the engineering team and the level of feedback to the salesperson on how information was used to improve the new product's design also plays a role. High recognition creates sales' commitment, and thus positively moderates the path between integration and adoption of the new product by sales. Feedback by the engineering team on how they used the salesperson's information has a similar motivating effect.

The level of success of the innovation in the marketplace depends on the level of product value or advantage of the new product and on the adoption of the new product by the salesperson. The relationship between salesperson adoption of the new product and success is contingent on the level of innovativeness of the new product and the competitive situation. Research has demonstrated that the successful management and reduction of uncertainties through *communication* and *customer education* are more important for radical new products. It also has shown that customer resistance to new product adoption is likely to increase for markets characterised by high levels of competitive intensity. Higher resistance emerges from customers' options to choose from a wider range of competing product offerings in markets where many suppliers are working hard to attract customers.

So, the conclusion is that the start-up's customer development team should be aware of (1) the importance of connecting the salesperson or staff to the organisation's engineering team and (2) the mechanisms through which this integration affects the success of the innovation in the marketplace. Specifically, the customer development team should stimulate sales to be connected and facilitate the knowledge brokering activities, as well as the diffusion and use of the information created. Timely involvement, mutual trust (recognition), and feedback loops need to be ensured and monitored.

## 9.3 Initial solution selling activities

Existing sales models are generally designed for established firms. They assume that the salesperson has a fully developed product and clear price list, as well as a simple goal: to sell this product or service. However, radically new products and services are, "indeed, new to the customer. Hence, there is no active demand for the new services and no active understanding of the business benefits of the services. This 'no active demand' situation puts all the responsibility on the seller … to motivate the buyer … to proceed."[7]

Therefore, a start-up's initial sales activities focus on finding lead customers, listening to them to obtain feedback on the product concept, and persuading them to help develop the new product, preferably together. It involves solution or value selling rather than transaction sales. It seeks to advance customers' value-in-use by demonstrating the provider's contribution to the customer's business processes and to the bottom line.

Solution selling includes three sets of activities:[8]

1. Relationship activities: Identify, contact, and develop key stakeholder relations.
2. Value activities: Develop, adapt, communicate, and quantify value to influence customer's incentive to proceed with the related solution vision.
3. Control activities: Gain commitments and devise shared plans to keep the buying and selling processes aligned and moving forward. It benefits from having the right governance mechanisms in place.

Value activities are central, and are supported by relationship and control activities. Relationship activities pave the way for engaging with the customer. They concern and focus on identifying, contacting, and developing key relationships with stakeholders of the lead customer (e.g., members of the DMU) by supporting their individual and organisational goal achievement. Control activities ensure progress and continuity. They manage the joint progress by agreeing on activity plans and measuring progress but also monitoring mutual commitment to proceed. The goal for the salesperson is to align the start-up's value creation (and thus innovation) process with the customer's business *and* buying processes in order to develop a sales roadmap for approaching future customers.

Although initial attention will focus on identifying the change agent in the lead customer organisation, in the end all stakeholders in the buying process will become involved and initiate the buying process. Many key decisions during the buying process are influenced by these actors' beliefs about what is relevant and critical in the current situation. The starting point of value-based influencing by the salesperson thus is to understand and map the customer's business process and analyse the problems the customer is trying to solve.

A careful analysis of all stakeholders should be made to positively influence them. The salesperson needs to work with these stakeholders to adapt the value proposition to the customer's situation to ensure maximum impact. Value calculations, benchmarking studies, and other value communication tools can be used to understand but also influence, align, and broaden the stakeholders' value perceptions.

The integration of customer and seller resources should help create a prototype and identify the MVP. Based on this and the information from working with the lead customer(s), the salesperson can craft the sales message to convince additional customers and thus grow the start-up's sales. A start can then be made to developing the sales roadmap, that is, identify the steps of how to convince subsequent prospects of the value of the new product (solution), and move them through the sales funnel.

It is important to remember that complex products or solutions generally require careful implementation to enjoy the product's value-in-use. It means that new routines and procedures may have to be developed to ensure the organisation can enjoy the new product's value in the context of the customer's business processes.[9] This involves training people and ensuring that new routines are developed and mastered. The salesperson should help customers in this process and even consider including it as a service that can be offered to the start-up's future customers at a fee.

Eventually the value-in-use can be observed, and the appreciation of the customer assessed. The challenge will be to come to an arrangement or price negotiation with the firm's lead customers and use to the information about development and production cost to develop a pricing strategy for future customers.

**Doing it right – Research support for value-based selling as guiding mechanism**

In a recent study we explored to what extent value-based selling (VBS) can help young firms deploy their resources optimally.[10] We focused on human and financial resource slack. Financial resource slack refers to resources in excess of what is needed for a firm to meet its current commitments and support current sales levels, while human resource slack pertains to the number of employees in excess of those needed for operational demands. The results confirmed the importance of VBS as a guiding mechanism that significantly alters the effects of both types of resource slack and their variability over time. However, while VBS proved useful in helping a young firm use slack resources to grow more effectively, we also detected a dark side; it can stand in the way of risk-taking. This suggests that VBS is a more appropriate solution for young firms that have identified the appropriate target market and thus discovered their initial customers. Value-based selling can help them create the right minimal viable product for the target market. It helps focus and ensure creating a new product for a problem that matters and makes a difference.

## 9.4 Developing the sales roadmap

Based on these solution selling efforts with lead customers a sales roadmap to win prospects from the identified target market should be developed. This roadmap details the sales approach to move prospective customers through the sales funnel. Generally, four steps are involved: prospecting, interacting, persuading, and maintaining the relationship. These are shown in Figure 9.2 together with several key activities.

Prospecting refers to the need for sales to develop a list of potential customers from the target segment. The list can be developed based on secondary data or, for instance, purchased from an address broker. The list can be reviewed to identify the most promising prospects for maximum effect. The

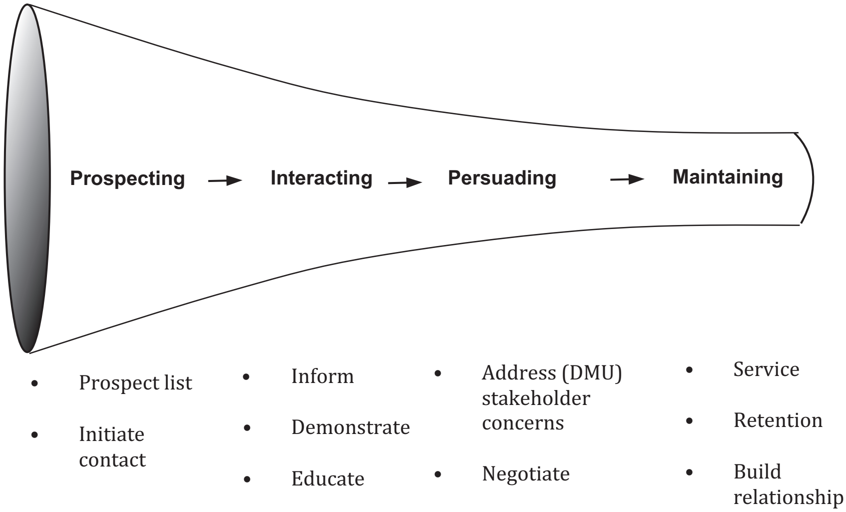


*Figure 9.2* The selling process as a funnel

next stage involves making initial contact. Because this is easier with a contact person on the other side (in the customer organisation), networking is important. Through one's own network, the name of a contact person can often be identified and an introduction made. The main objective is getting a first appointment. During the visit, the salesperson needs to listen carefully to obtain as much information from the prospect and his or her situation as possible. Another objective is informing the prospect about the start-up, its innovation, and services. However, the focus should be on the solution the start-up offers through its technology and application – not on the product or its features. A demonstration may help explain what the product can do and can take away potential scepticism. Some knowledge customer education may be required to help the customer understand and appreciate the innovation.

As mentioned earlier, information collection is a very important sales task. By asking the right questions and listening carefully, information about reasons for and barriers to adoption can be discovered. Much can also be learned about who are involved in the buying decision and what they think is important. The data collection thus should involve finding out more about the *decision-making unit* (DMU) and different members', that is, stakeholders' buying criteria.

The third stage is persuasion. If the customer is interested and the start-up can make a sales pitch, it is important to prepare well. This requires a strong sales message and arguments (and solutions to objections) for all stakeholders to maximise the chance of adoption. A negotiation strategy should also be developed in which a deal is outlined and the ultimate boundaries (e.g., lowest price) determined.

Finally, the product delivery and service stage is reached, which extends to the maintaining and extension of the relationship. The first stage, product delivery, is important to ensure a satisfied customer. The second, maintaining and extending the relationship, is helpful to grow the start-up's business.

Answering the following questions should help to develop the sales approach and the sales process:[11]

- *Prospecting*. Who are the prospects? Which prospects will you visit over the next six months? How will you reach and approach them? Who will you meet and what are their specific functions in their companies? How will you engage them in conversation?
- *Customer purchasing cycle and pipeline*. What are the key elements of the customer purchasing cycle and how will we lead prospects through this process? How, if necessary, will we modify our approach? How successful were we at each stage of the cycle and where are potential bottlenecks? Which customers are currently in the process and where? Which specific obstacles exist and how can these be mitigated?
- *Value proposition and sales presentation strategy*. What is our value proposition and what differentiates us from the competition? How does it solve a prospect's business challenges? Does it reduce expense, increase revenue or both? Can we prove this? What will increase customer interest and urgency?
- *Barriers to be overcome*. What are the barriers to sales success – competition from other companies, lack of confidence in the start-up or the new technology and so on? What are common objections? Who tends to express each objection and how will you resolve them in your marketing and sales process? Do we need to educate before we can sell? What endorsement from respected authorities can we use to reassure prospects?
- *Alignment with marketing*. Are leads adequately nurtured and scored for sales readiness or should better routines be installed? What marketing efforts (e.g., promotions, events, discounting) are planned and how will these support the sales cycle? Is the timing correct? Will it create synergy? Which simple extra marketing or other support activities (e.g., better after-sales service, follow-up) are required?
- *Goal setting and target assignment*. What are your targets for new customer acquisition and existing customer sales? What sales activities will enable you to achieve these goals? What sales budget do you need to develop and implement these sales activities?
- *Sales staff and recruitment*. Are the sales staff well educated and competent or is more training required? Is sales capacity adequate or should extra people be hired, and if so, what qualifications and profile do they need? Will extra sales support the extra expenses? What recruitment actions will be taken?

- *Control*. Have activities been implemented well and are they effective? What can you learn from this evaluation? Should goals be retained or new goals be set?

Compared with the experimental mode of entrepreneurial selling, regular selling is less uncertain and more focused on persuading and ensuring that a created relationship will continue. This explains why entrepreneurial selling benefits from an *adaptive selling* approach.[12] Adaptive selling concerns "the altering of sales behaviours during a customer interaction or across customer interactions based on perceived information about the nature of the selling situation".[13] It refers to adjusting your sales approach and message depending on characteristics of the customer.

Experimenting with your sales approach can help discover customer types that exist and identify the approach that fits best with each of them. It takes more concentration while interacting with prospects and requires more pre-call planning and information gathering but will pay off. Adaptive selling recognises and accounts for the fact that each customer is different. Some customers like to hear details and have everything explained, whereas others may be simply convinced by a demonstration and overview of cost versus benefits. Particularly in the beginning of trying to sell the start-up's new product such an approach is crucial.

## 9.5 Developing the sales message

The sales message should prove to prospects that the start-up has an important new solution. A strong message benefits from a strong and unique value proposition that delivers clear, tangible results for the customer such as increased revenues, decreased costs, and improved operational efficiency, among others. It will benefit from multiple iterations using customer feedback. The boxed text that follows shows a basic format that you can use. It emphasises transferring knowledge about the product and explaining how the product links to the customer's situation and problems.

Your sales message needs to be short, clear, and focused on the value the new product (or service) provides to customers of your target market. Thus, benefits rather than features or technology should be stressed. Observable features of the product can be mentioned and should be carefully linked to particular benefits. It will help the customer relate the product to his or her problem situation. A first customer reference can be added as endorsement. It can help create trust and reduce perceived risk.

**A basic format for a sales message**

Our company, ________________,
offers to ________________ (target customers)
a new solution: ____________ (concept → problem).

Our primary points of difference are ____________.
Our main benefits include _____________.
This is what our customers say about our product and us: ______________ (references/testimonials).
With (our product), you (the customer) will be able to achieve (customer's goals) ________.

You should pitch the main message to the person in charge in the DMU of the potential customer (or change agent). During the presentation and questions-and-answers session, it helps to address the needs of the prospect as fully as possible by showing understanding of their situation and by being responsive to all their questions. Furthermore, make sure all parties in the group feel involved. In fact, for every stakeholder in (and outside) the DMU, a separate, solid, accurate, professional message should be developed. If a team is involved in pitching the start-up's new product, it pays to make sure that each individual contributes and understands his or her role.

**Doing it right – Prepare sales presentations well**

Companies always hold a debrief after a sales presentation and any member of the group who feels ignored can tip the scales in your disfavour. Once doubt and criticism about the product have been raised in the debrief, corporate groupthink can take over. Your formerly stellar sales presentation can be shot full of holes when later, behind doors, staff are asked for their criticism. This means that you must obtain a list of all attendees and their functions in advance before you prepare your presentation and that clear and solid arguments should be developed for each stakeholder. Such a proactive approach can help ensure you move forward in the sales process and increases the chance of closing the deal. Moreover, even if you do not manage to make the sale, you will learn in the process from the feedback obtained.

Because start-ups need to prove themselves and may suddenly disappear from the market due to instability, it is important to pay particular attention to building trust in the start-up's future. References, support from investors, any prizes won, and links with the scientific community or experts can be used for this. Growth in the start-up's sales may also be used as an indication of the attractiveness of its product, success, and likelihood of survival.

If possible, you can demonstrate your high-tech product as part of the presentation. It is smart to try to involve your prospect in the demonstration, for instance, by asking them to operate the system or letting them choose options. It creates a bond and is one of the best ways to decrease scepticism. But practise this demonstration beforehand repeatedly, considering all the points that could malfunction. Nothing should be left to chance. A successful presentation covers all relevant details, but without boring the audience. Commit them to memory so that you can concentrate on the issues that arise from your customer. Of course, your audience will ask questions. If you do not know an answer, simply admit it, note it down, find out the answer and make sure you send a response to the entire group within 24 hours. Customers want to see and experience a responsive human being they can trust.

**Doing it right – Three important guidelines for approaching your prospects**

First, selling requires listening rather than hearing. The difference is understanding what the prospect says and being sensitive to his or her concerns and needs, and (jointly) looking for solutions. Listening thus is proactive and aimed at helping detect and resolve the customer's problem. It is a necessary trait for being able to establish whether your new product application will be a good option for the client.

Second, the sales message should focus on benefits rather than features, or even better, link features to benefits. This will help the prospect understand the product as a means to an end – why your new product is a solution to the customer's problem. In this process, existing alternatives in the marketplace may be used as benchmarks, illustrating how and why the new product is better.

Third, to stimulate the prospect of talking about his or her situation, you can use the SPIN model and sequence, which refers to situation, problem, implication, and need–payoff of a customer:[14]

- *Situation questions*. First, ask about facts and background. This information helps you understand the customer's context and stage of development.
- *Problem questions*. Second, explore problems, difficulties, and dissatisfactions in areas where your start-up's product can help.
- *Implication questions*. Third, follow up on a customer problem and explore its effects. The aim is to help the customer understand the problem's seriousness.
- *Need–payoff questions*. Finally, ask questions that encourage the customer to tell you the benefits that your solution could offer. You can use these clues to modify and refine your own sales message.

Previously, we saw that most new technologies enter a market from below; that is, most new technologies and their applications underperform, at least on some core dimensions, compared with existing products available on the market. Therefore, the salesperson should pay special attention to the order in which positive and negative claims are presented to customers. The order of arguments may make big a difference in the way customers weigh positives and negatives. If the negatives are minor, the order will not matter much.

However, if the negatives are serious, it is better to address them first. With the negatives out of the way, all attention can focus on the positive points. The advantage is that you now can close with a positive message, leaving the customer with a positive feeling.[15]

## 9.6 Managing customer expectations

A start-up developing a new technology and application often experiences important setbacks and delays. While in the beginning, sales for a start-up may be hard because there is no physical product to show to the customer, delays in final product design and production are other elements that can be accounted for and anticipated. Unexpected delays may leave customers frustrated and create negative word of mouth.

This explains why managing customer expectations is an essential element of the customer relationship development process. Customers understand that new ventures face a lot of uncertainty and thus that delays can occur. However, they do expect you to handle matters professionally. As soon as they think you are not in control, exasperation and even anger may arise. The salesperson should take charge immediately. Here are some tips to keep customers satisfied.

- *Under-promise and over-perform*. It is better to set reasonable goals and exceed a customer's expectations than to promise too much and under-deliver. Make sure you can consistently achieve and exceed by setting realistic expectations with customers. If for some reason you cannot meet goals, be open about the situation and problems. Tell it as it is. This is least painful and creates a new basis to work from.
- *Use psychological compensation.* Acknowledging the customer's issue and relating to their emotions through empathetic listening will provide psychological compensation and soften customers' reaction. This has no economic consequences but eases things up.
- *Understand the customer's priorities.* Ask questions to make sure you understand the customers' needs and timeline. This will allow assessment of whether you can still fulfil their wishes despite the delay. For those customers who are willing to wait, determine their expectations and make new arrangements. For those customers who cannot be kept on board, you should make alternative arrangements, for example, by offering them a refund.
- *Develop excellent service procedures.* To be able to respond to problems and customer inquiries effectively, you need excellent service. Here also the adage of under-promise and over-perform applies. Although you may explain on your website that you will respond in, for instance, two days, you will make a better and lasting impression if you respond in half the time.

### Example – CTRL Eyewear's handling of delay

An example of good expectation management is CTRL Eyewear.[16] Established in 2015 in the Netherlands as a subsidiary of AlphaMicron Inc., a firm with vast experience in adaptive military lens technology, CTRL Eyewear designs, develops, and markets innovative eyewear. It sells lightning-fast e-Tint technology glasses targeting high-performance athletes and outdoor adventurists. These glasses immediately switch from bright to shade depending on the light situation. A promotion film starring cyclist Andy Schleck illustrates how the product works (www.youtube.com/watch?v=Sy97UdWIUkM; accessed 16 December 2016).

After CTRL Eyewear was bought by AlphaMicron, the decision was made to move production to the USA. Although this benefited product quality, customer expectations regarding delivery could not be met. CTRL Eyewear asked the customers who had bought the glasses upfront on the Internet in a crowdfunding action whether they minded waiting. Most customers did not mind the delay, but some customers who had bought the new product planning to use it as a Christmas gift were disappointed. To cater to these customers' needs, the firm offered an apology and a quick refund.

### Summary

- Entrepreneurial selling is characterised by high uncertainty and involves a sales learning process and serious knowledge brokering. The process is difficult to accelerate. Only when sales accelerate should the sales force be extended.
- A good integration between the sales staff and the engineering team developing the new technology and application is important. It will facilitate knowledge transfer and motivate the salesperson(s).
- Adopting a solution selling approach to engage and learn from first, lead customers is important. It will help create trust and co-create a prototype that can be the basis for a minimal viable product for the market. It will help find the business model with developing a sales roadmap for future customers by offering insight into the customer's buying processes and needs.
- Next, the sales roadmap should be optimised by selling to more innovative customers. It will benefit from an adaptive selling approach.
- Focus on conveying the unique business value of your product for the customer. Substantiate the value of the solution as much as possible.
- When making sales presentations paying close attention to all different members of the customer DMU, that is, stakeholders; deliver a convincing message for all people involved.

## Notes

1 Blank (2007), p. 214 (emphasis added).
2 Leslie and Holloway (2006).
3 Berg et al. (2014).
4 Colm et al. (2020).
5 Zablah et al. (2012).
6 Kuester et al. (2017).
7 Töytäri (2018) p. 272.
8 Töytäri (2018).
9 Hartmann et al. (2018), Macdonald et al. (2016).
10 De Jong et al. (2021).
11 For instance, Geery and Barrieau (2011).
12 Franke and Park (2006).
13 Weitz et al. (1986), p. 175.
14 Rackham (1995).
15 Based on Cialdini (2014).
16 BNR Radio – interview with Daf E. Dubbelman, CEO CTRL Eyewear (presenting at Harvard, 13 October 2015).

Chapter 10

# Developing the new firm's marketing and sales capabilities

**Key issues**

- Explain the importance of developing marketing and sales capabilities to achieve competitive advantage.
- Distinguishing between marketing capabilities for survival and growth.
- Explain the transition from the customer development team to a marketing and sales department.
- Clarify how marketing and sales capabilities contribute to other business processes.

## 10.1 Developing the commercial capabilities of the new firm

The resource-based view asserts that firms gain and sustain competitive advantage by developing and using the organisation's resources. These resources refer to the tangible and intangible assets used in *business processes*, and which become its unique capabilities.[1] Examples of business processes are developing new products, supply chain management to manufacture and deliver products, attracting new customers, and maintaining relationships with existing customers. Unique capabilities are difficult for competitors to copy and thus form the foundation of a firm's customer value and competitive advantage in the market.

When the firm's business processes are well aligned, the resulting synergy creates greater value than the sum of each individual process. Therefore, entrepreneurs should beware of sub-optimising business processes by focusing on some processes but neglecting others. In other words, a start-up should avoid the common mistake of creating capabilities to develop its new products technically, while failing to create strong marketing/sales capabilities to ensure the new product's commercialisation.

Bell and Mason[2] created a model to help start-ups in their capability-building process. Based on experience with hundreds of ventures, they created a model emphasising the required shifts of focus over time. Their model is

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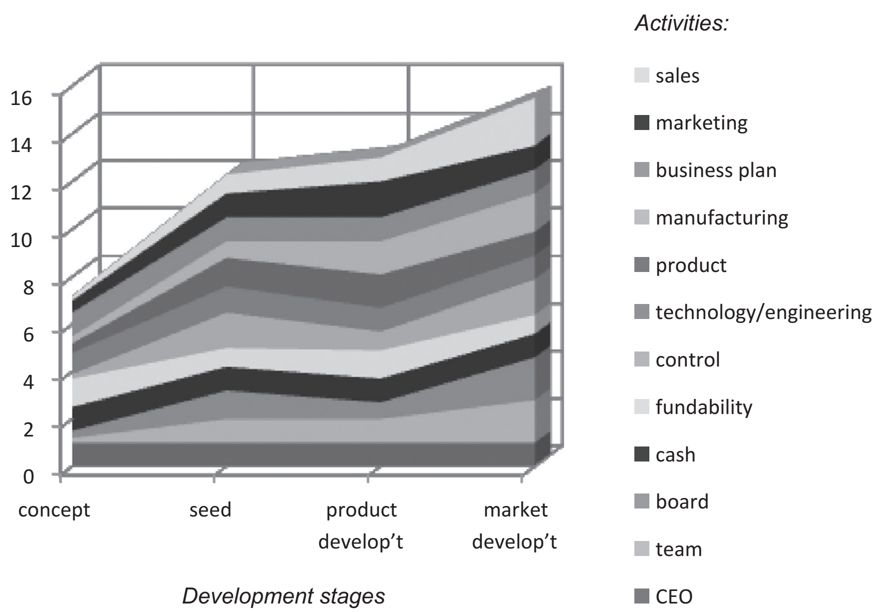


*Figure 10.1* Impression of the Bell-Mason diagram of ideal distribution of capabilities [vertical axis] per stage of the start-up's development [horizontal axis] (adapted from Bell and McNamara 1991)

used by the Bell Mason Group and applied to help create new ventures in many large corporations. The model (see Figure 10.1) includes 12 dimensions and distinguishes 4 stages of development of the start-up that closely match the main stages of the new product development trajectory:

1 Concept or conceptualisation of product and business model;
2 Seeding money or funding;
3 Product development; and
4 (4) Market development.

The 12 dimensions refer (using abbreviated labels) to the types of capabilities that every start-up needs. They vary from product (or product concept), business plan (development), marketing, sales, manufacturing, research and development (R&D)/engineering or new product development, to attracting funds, teamwork, CEO quality, and administrative control capabilities. The model illustrates which organisational dimensions or capabilities should be developed and available at each stage. Bell and Mason explain that in the beginning, in the conceptualisation stage, entrepreneurs' attention should focus on making a business plan, technology engineering, and generating funding. At this conceptualisation phase, marketing and sales are important for identifying the market and market potential, but their relative roles are limited. So, limited levels of marketing and sales capabilities suffice at this stage.

Next, in the seed stage, the entrepreneur should look for venture capital and persuade investors to support his or her idea. As Figure 10.1 indicates, here again, modest marketing and sales knowledge is sufficient.

However, during the product development phase, things change. Now, sales gains importance and marketing becomes a dominant force. It can be explained by the new firm's need to discover and validate customers for its innovation or product application, preferably before much money is spent on developing a prototype. It implies that serious investments in marketing are now needed. The entrepreneur should make sure that the necessary marketing and sales capabilities have been built to allow for this input.

The final stage of the Bell-Mason model concerns market development and gives a key role to sales. This stage resembles Blank's business building.[3] At this phase of development, all attention should shift towards scaling up the business. This process requires rapid improvement of the organisation's sales capabilities, while marketing has a more modest support role.[4]

The Bell-Mason model offers a general understanding of the 12 important capabilities a start-up should develop. Although each capability's importance shifts at different stages of the start-up's evolution, we would like to stress that at all times, the capability profile of the firm is a balanced mix of them; attention just shifts relatively. Finally we note the progression in the start-up's overall capability profile; at the beginning capabilities are limited whereas at the end they are much stronger.

Building capabilities in a timely fashion is important to enable the start-up to move forward. For instance, one may develop a plan for a new business but should not forget that the ability to make a convincing pitch is critical to obtain funding. In a similar way, it is important to get the product to work properly and to resolve technical issues, but this should not distract the firm from developing its commercial skills or from resolving manufacturing and supply chain issues.

Although the Bell-Mason model does not differentiate between effectual and traditional marketing and sales capabilities, it is easy to understand that – in the process – attention will shift from company survival to company growth. The speed of the shift from one to another will depend on the nature of the new product and how quickly a foothold in the market is created. Compared with radical new products, incremental new products will require less effectual marketing and sales. If market entry is obtained quickly, a swift switch from effectuation to traditional marketing and sales can be made. Yet, it is also clear that Bell and Mason link marketing rather than sales with customer discovery and validation, and associated company building with sales rather than marketing. We adopted a more balanced perspective to reflect the realities of today.

## 10.2 Marketing and sales capabilities for survival and growth stages

Although research supports a positive effect of marketing and sales capabilities on firm performance,[5] for start-ups a more detailed perspective is useful. Start-ups are searching for product-market fit and a business model. Consequently, their focus is on survival before they can focus on growing their business. *Survival* refers to discovering customers and validating their interest in the new product, and possibly changing the product to better satisfy these customers' (latent) needs. An important goal of this stage is identifying and developing the business model. *Growth* concerns expanding the young firm's customer base and thus building its position in its target customer segment, that is, niche. It concerns company development and leveraging the marketing and sales roadmap that it has developed. Consistent with this, we differentiate between marketing and sales capabilities that are particularly useful in each of these two stages.

Effectuation marketing is most suited to be used in the beginning of the start-up's existence, that is, for customer discovery and validation. It serves the situation where customers and the market are unclear and product-market fit still needs to be established. Traditional marketing is best used for customer creation, and particularly for company building, that is, when 'who is the customer?' is no longer the question.

Figure 10.2 shows a start-up's commercialisation efforts and the effect on the two outcomes of the different stages of development.[6] The impact of the commercialisation effort on performance is anticipated to be contingent on the type of marketing and sales capabilities used. Effectuation-related marketing capabilities, which are shown in the top row, mainly benefit survival, whereas the traditional marketing capabilities, shown in the bottom row, particularly stimulate growth. The set of factors or capabilities listed is illustrative rather than exhaustive. Whereas the effectuation capability of 'market probing and experimentation' is anticipated to be useful in both stages of development, some capabilities, like, for

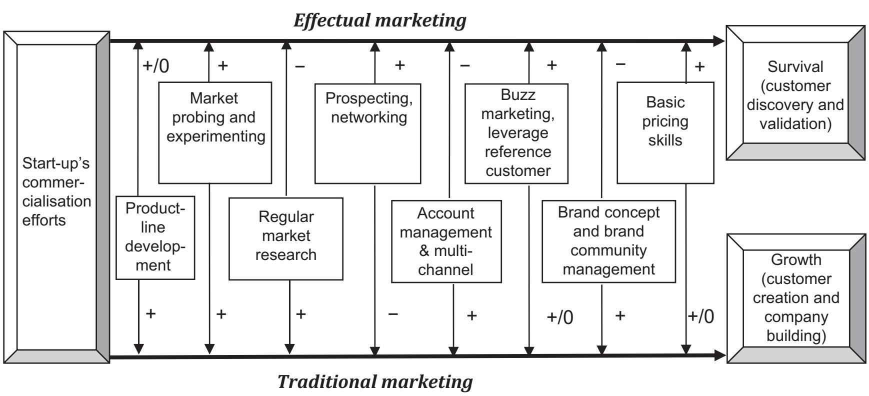


*Figure 10.2* Marketing and sales capabilities and the effects on survival and growth

example, regular market research and account management, positively moderate growth but negatively influence the commercialisation effort-survival relationship. Reliance on existing market boundaries and product categories make regular market research too limited in scope and, as a result, inadequate to detect product-market fit for radically new products at the survival stage. Similar arguments apply to the effect of account management and other traditional marketing capabilities. Of course, some of the effectuation-related capabilities may work better under conditions of survival than growth.

When a start-up selects and targets its first market segment, it is faced with the tasks of creating entirely new routines and capabilities. This resource-intensive process requires substantial investments in developing its marketing and sales capabilities that can help deal with the high uncertainty surrounding the market opportunity, discovering the product-market fit, and finding a business model for the start-up. The focus should be on effectuation-related capabilities development. Examples of essential marketing/sales capabilities that benefit survival are:

1 buzz marketing to build presence in the marketplace (educating the market) as well as create awareness for the new product application;
2 experimentation with customers to discover and validate demand;
3 networking to find the right business partners and marketing channel to gain access to the market (i.e., customers); and
4 basic pricing skills.

Four capabilities that align with the growth stage of firm's development can also be identified. These all refer to regular or traditional marketing capabilities. These include:

1 account management;
2 communication with, and development of, the firm's brand community and brand;
3 development of the firm's product line; and
4 engagement in regular market research.

The transformation from survival to growth (and thus from effectual to regular marketing/sales) generally is incremental because dealing with uncertainty slowly gives way to the exploration of the start-up's new markets as product-market fit is established, and knowledge and experience accumulate. However, it typically accelerates once the business model has been found. This generally acts as a tipping-point. Having passed the so-called Valley of Death, and therefore having established the validity of its new product for customers, the start-up can begin using more commonplace marketing and sales capabilities.

The greater the firm's accumulation of experience and sales, the more resource commitment the entrepreneur can make to build marketing and sales capabilities, switching from one approach to the other.

## 10.3 From customer development team to marketing/sales department

As the new firm becomes established, its organisation will evolve and grow. This will result in more formal functions and processes. While new customer development and supply chain activities are first organised around the new product development of the start-up, the activities become increasingly important and institutionalised. Thus, they become recognisable as separate and regular business processes. With existing customers repurchasing the product and new customers adding to the firm's overall sales growth, the customer base is expanding. As a result of this, attention will expand to include maintaining existing customer relationships. It can result in the decision to end the customer development team and project and create a formal marketing/sales department instead.

The optimum number of marketing/salespeople required at the early stage of development is rarely seriously considered in many start-ups. Obviously, the appropriate numbers of marketing and sales staff should be determined by the set of marketing and sales tasks and capabilities needed, but in the early stages this is often unclear, or employees with the right skills are hard to find, or to afford. Marketing and sales capabilities can be developed by educating and training engineers, or by hiring specialised staff. Engineers with commercial training and marketers or salespeople with a technical background are preferred because they can easily navigate between technical and commercial issues. Understanding both the technical and commercial side of things, they are in an ideal situation to interact with customers, but they also help the start-up's own engineers to improve the current product solution. They can explain to the start-up's engineers how to adjust the product as they can consider both customer benefit and technological dimensions – and communicate this effectively.

When moving towards a formal marketing department, more traditional marketing and salespeople can be hired. Now marketing and sales objectives begin to resemble more and more those of an established, larger firm (e.g., number of new customers, repurchases, and profits per customer). Activities will resemble what one would expect of regular marketing and sales. It will include capabilities to perform marketing analyses at strategic and tactical levels, ranging from branding to pricing decisions. Table 10.1 offers a general overview of these capabilities as they relate to key internal business processes.

## 10.4 Implement, evaluate, and improve the one-page plan

To secure a proper organisational development, the start-up needs a strong, viable marketing and sales function. This requires investing in marketing and sales capabilities but is sustained by the ability of these functions to *act*

*Table 10.1* Sample of marketing-relevant tasks in core business processes (adapted from Srivastava et al. 1999)

| *Product development management process* | *Supply chain management process* | *Customer relationship management process* |
|---|---|---|
| Ascertain customer needs and offer input for ideas, concept, design | Help select suppliers | Identify prospects |
| Identify and manage internal relationship between departments | Design and manage inbound, internal, and outbound logistics | Determine customer needs and buying process, decision-making units |
| Manage relevant external relationship | Order processing, pricing, billing, etc. | Develop and execute sales activities, both prospecting and account management |
| Test concept, prototype, etc. | Create and manage (multi) channels | Develop and manage advertising and promotional programmes |
| Test market development and execution | Manage customer services, maintenance, etc. | Acquire and maintain CRM system and software |
| Develop launch strategy and collect initial customer feedback | | Develop and manage loyalty programmes, including cross- and upselling |

*accountably* and thus show how they contribute to the start-up's bottom line. By developing marketing and sales performance measures, a marketing and sales department can achieve greater status in the start-up. It will secure future investment in marketing and sales capabilities, and free up resources to ensure that the firm's future products will be developed with the customer and market in mind. This is important, as chasms always potentially occur and slow down the start-up's development.

The simple marketing and sales plans used at the beginning of the development of the start-up will, slowly but surely, become more elaborate and detailed. When this happens, effectuation will be replaced by traditional marketing planning. Consistent with this, the collection and analysis of market data will become more standardised and the relationship with important marketing and sales decisions more routine. A *marketing dashboard* can then be developed. A dashboard is a refined set of marketing performance data, usually presented together, which provides an overview of the strategic marketing performance of the firm.[7] Two important elements of dashboards are:

1 they provide automated or virtually real-time reporting;
2 they provide indicators and levers to make the changes necessary to optimise outcomes.

Possible indicators of overall marketing performance are, for instance, sales volume per month, profit margin per customer and share of (the customer's) wallet. Specific indicators, referring to individual marketing instruments and levers, may include the effectiveness of promotions, customer satisfaction and loyalty, quality of distribution and after-sales service performance (recovery speed, customer satisfaction after repair, etc.), but also the number of new leads, lead conversion rate and percentage sales to existing and to new customers. Levers are the product, the brand of the company, and its distribution and relationship management strategy, among others.[8]

A marketing dashboard helps marketing and salespeople to enhance the effect of their efforts. Although the marketing dashboard's scope will be limited at first, start-ups can enhance their marketing efforts by developing such a tool.

Investments in marketing information systems (MIS) will complement the capability building; it helps ensure the young firm's market orientation. Marketing information systems involve generating, analysing, and disseminating internally information about customers and competitors, but also about other stakeholders in the start-up's evolving business. It ensures that the organisation acts in a market-oriented way and makes market informed decisions. A customer relationship management (CRM) module can complement the firm's MIS. Originally initiated by the customer development team, it will now be professionalised, institutionalised, and integrated with the other information systems.

## 10.5 Concluding remarks

Over 40 years ago, Drucker stressed the importance for firms of investing in marketing and sales alongside developing new products.[9] Otherwise, the new product's market success would be hampered. His advice was based on the observation that firms generally underspend during concept development and launch, which jeopardises the chance of generating customer interest and creating customer demand. He even went so far as to claim

> Because the purpose of business is to create a customer, the business enterprise has two, and only two, basic functions: marketing and innovation. Marketing and innovation produce results; all the rest are cost. Marketing is the distinguishing, unique function of the business.[10]

Of course, there is also anecdotal evidence suggesting that marketing and sales are not important. For instance, in a radio interview, the successful Dutch entrepreneur Raymond Cloosterman, CEO of Rituals (a brand of innovative personal body-care products), claimed that his success had nothing to do with smart marketing and sales. However, such claims are misleading as even a cursory evaluation of this start-up's success immediately points at excellent rather than no marketing and sales capabilities and efforts.

Entrepreneurship gurus also add to the confusion. Blank (2007), for example, rejects marketing and sales.

> Note that I am making a concerted effort not to call Customer Development a "sales process" or a "marketing process." … early on, we are neither selling or marketing. Before any of the traditional functions of selling and marketing can happen, the company has to prove that a market could exist, verify that someone would pay real dollars for the solutions the company envisions, and then go out and create the market.

Unfortunately, he forgets that Drucker would argue that customer development *is* marketing.

To be successful, a start-up should get both its product/R&D and marketing/sales right. So, entrepreneurs should make sure to develop the technological and commercial capabilities of their new firm to survive and grow effectively.

This book combines concepts from entrepreneurship, lean start-up, and marketing/sales in a single framework. Placing the effectuation (and lean) view centre stage, it emphasises that beginning with new technology and product application, an entrepreneur can search for the best environment and optimum target segment to enter the market and use primary market research to understand customer problems and discover and serve latent needs. It benefits from co-creation with innovative, lead customers, and market probing. By combining practical advice from the lean approach with more fundamental theoretical perspectives from marketing and sales the best result can be accomplished.

Complementing new product development with a customer development process is the best guarantee for careful attention to building the customer for the start-up and allocating adequate resources to this endeavour. A customer development team should be created and manage this process and ensure that the young organisation develops commercial capabilities that it can later leverage. It helps make customer building a formal activity and can help balance and guide the start-up's technical product development. Entrepreneurs who manage and bridge product and customer development effectively are true artists and will enjoy better success rates. They stand the best chance of finding the customer and a viable business model based on the value of the solution created for this type of customer.

**Summary**

- Start-ups should carefully develop their marketing and sales capabilities in a timely way. This requires investing in marketing and sales staff.
- First, marketing and sales capabilities need to be shaped in accordance with the effectuation view and focus on helping to achieve survival.
- Next, attention should shift to building marketing and sales capabilities to grow the business.

- Developing marketing and sales capabilities is a vital part of creating a complete organisation that is able to manage the interface with the customer in all its aspects.
- Marketing and sales capabilities contribute not only to new product development, but also to customer management and supply chain management processes.

## Notes

1 Ray et al. (2004).
2 See Bell and McNamara (1991); and, for example, www.bellmasongroup.com/approach (accessed 15 February 2021).
3 Blank (2007).
4 Bell and McNamara (1991).
5 Morgan et al. (2009).
6 Inspired by Sapienza et al. (2006).
7 O'Sullivan and Abela (2007).
8 Rust et al. (2000).
9 Drucker (1973), p. 785.
10 Drucker (1985).

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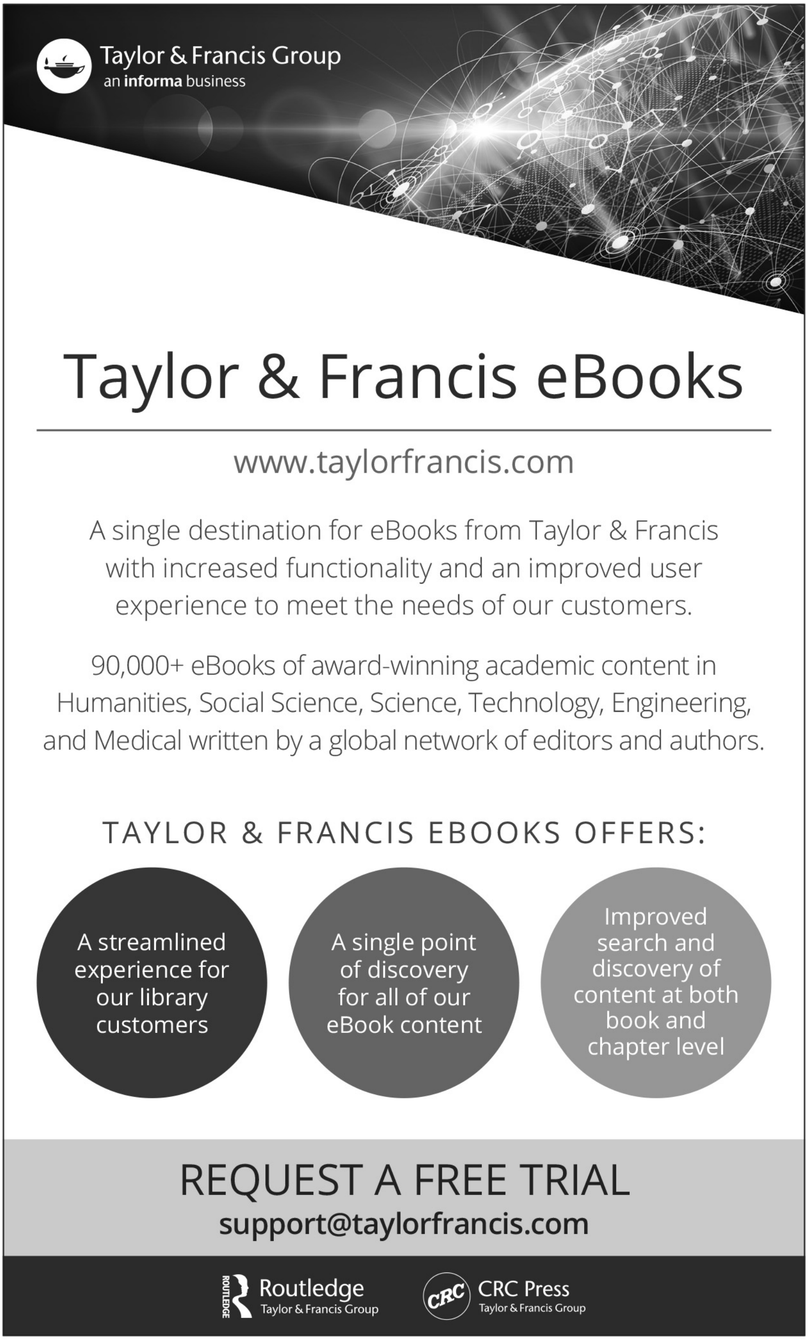
# Index



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